

SCAG
POWER EQUIPMENT®

*OPERATOR'S
MANUAL*
V-Ride



Model: SVR36A-600FX
 SVR48V-691FX
 SVR52V-730FX
 SVR61V-801FX

Congratulations on owning a Scag mower! This manual contains the operating instructions and safety information for your Scag mower. Reading this manual can provide you with assistance in maintenance and adjustment procedures to keep your mower performing to maximum efficiency. The specific models that this book covers are listed on the inside cover. Before operating your machine, please read all the information enclosed.



WARNING

FAILURE TO FOLLOW SAFE OPERATING PRACTICES MAY RESULT IN SERIOUS INJURY OR DEATH.

- Read this manual completely as well as other manuals that came with your mower.
- ALWAYS FOLLOW OSHA APPROVED OPERATION.
- DO NOT operate on steep slopes.
- Under no circumstances should the machine be operated on slopes greater than 20 degrees. ALWAYS FOLLOW OSHA APPROVED OPERATION.
- Stay two cut widths away from slopes, drop offs, ditches and retaining walls.
- DO NOT back down a slope or ramp.
- DO NOT mow on wet grass. Wet grass reduces traction and steering control.
- Keep all shields in place, especially the grass discharge chute.
- Before performing any maintenance or service, stop the machine and remove the spark plug wire and ignition key.
- If a mechanism becomes clogged, stop the engine before cleaning.
- Keep hands, feet and clothing away from power-driven parts.
- Keep others off the mower (only one person at a time)

REMEMBER - YOUR MOWER IS ONLY AS SAFE AS THE OPERATOR!

HAZARD CONTROL AND ACCIDENT PREVENTION ARE DEPENDENT UPON THE AWARENESS, CONCERN, PRUDENCE, AND PROPER TRAINING OF THE PERSONNEL INVOLVED IN THE OPERATION, TRANSPORT, MAINTENANCE, AND STORAGE OF THE EQUIPMENT.

This manual covers the operating instructions and illustrated parts list for:

SVR36A-600FX	with a serial number of	H3700001 to H3799999
SVR48V-691FX	with a serial number of	H3800001 to H3899999
SVR52V-730FX	with a serial number of	H3900001 to H3999999
SVR61V-801FX	with a serial number of	H4000041 to H4099999

Always use the entire serial number listed on the serial number tag when referring to this product.

Table of Contents**Table of Contents**

SECTION 1 - GENERAL INFORMATION.....	1
1.1 INTRODUCTION.....	1
1.2 DIRECTION REFERENCE	1
1.3 SERVICING THE ENGINE AND DRIVE TRAIN COMPONENTS.....	1
1.4 SYMBOLS	2
SECTION 2 - SAFETY INFORMATION	3
2.1 INTRODUCTION.....	3
2.2 SIGNAL WORDS	3
2.3 BEFORE OPERATION CONSIDERATIONS.....	3
2.4 OPERATION CONSIDERATIONS.....	4
2.5 MAINTENANCE CONSIDERATIONS & STORAGE	6
2.6 USING A SPARK ARRESTOR.....	7
2.7 SPARK IGNITION SYSTEM	7
2.8 SAFETY AND INSTRUCTIONAL DECALS	8
SECTION 3 - SPECIFICATIONS	9
3.1 ENGINE	9
3.2 ELECTRICAL	9
3.3 ENGINE DECK.....	9
3.4 CUTTER DECK	10
3.5 WEIGHTS AND DIMENSIONS	10
3.6 PRODUCTIVITY	10
SECTION 4 - OPERATING INSTRUCTIONS	11
4.1 CONTROLS AND INSTRUMENT IDENTIFICATION	11
4.2 SAFETY INTERLOCK SYSTEM	12
4.3 INITIAL RUN-IN PROCEDURES.....	12
4.4 STARTING THE ENGINE	12
4.5 GROUND TRAVEL AND STEERING	13
4.6 ENGAGING THE DECK DRIVE (CUTTER BLADES).....	14
4.7 OPERATING PLATFORM	15
4.8 HILLSIDE OPERATION.....	16
4.9 PARKING THE MOWER	16
4.10 AFTER OPERATION	16
4.11 REMOVING CLOGGED MATERIAL	16
4.12 MOVING MOWER WITH ENGINE STOPPED.....	17
4.13 RECOMMENDATIONS FOR MOWING	17
4.14 ADJUSTING CUTTING HEIGHT.....	17
SECTION 5 - TROUBLESHOOTING CUTTING CONDITIONS	18

SECTION 6 - ADJUSTMENTS	21
6.1 PARKING BRAKE ADJUSTMENT	21
6.2 TRAVEL ADJUSTMENT.....	21
6.3 THROTTLE CONTROL AND CHOKE ADJUSTMENTS	23
6.4 BELT ADJUSTMENTS	23
6.5 BELT ALIGNMENT.....	23
6.6 CUTTER DECK ADJUSTMENTS	23
6.7 ELECTRIC CLUTCH ADJUSTMENT.....	28
6.8 FRONT WEIGHT ADJUSTMENT	28
6.9 OPERATOR CUSHION ADJUSTMENT.....	29
SECTION 7 - MAINTENANCE.....	31
7.1 MAINTENANCE CHART - RECOMMENDED SERVICE INTERVALS	31
7.2 LUBRICATION.....	32
7.3 HYDRAULIC SYSTEM	34
7.4 ENGINE OIL	35
7.5 ENGINE FUEL SYSTEM	36
7.6 ENGINE AIR CLEANER.....	37
7.7 BATTERY - ELECTRIC START MODELS.....	37
7.8 DRIVE BELTS.....	38
7.9 CUTTER BLADES.....	38
7.10 TIRES.....	40
7.11 BODY AND DECK.....	40
SECTION 8 - ILLUSTRATED PARTS LIST	42
8.1 SCAG APPROVED ATTACHMENTS AND ACCESSORIES.....	42
36A CUTTER DECK.....	44
48V & 52V CUTTER DECKS	46
61V CUTTER DECK.....	48
SVR36A, SVR48V & SVR52V CUTTER DECK CONTROLS	50
SVR61V CUTTER DECK CONTROLS	52
SVR SHEET METAL COMPONENTS.....	54
STEERING CONTROLS.....	56
SVR FUEL SYSTEM	58
HYDRAULICS AND ENGINE COMPONENTS	60
SVR-61V HYDRAULICS AND ENGINE COMPONENTS	62
ELECTRICAL SYSTEM	64
REPLACEMENT DECALS AND INFORMATION PLATES	66
SVR ELECTRICAL SCHEMATIC.....	68
LIMITED WARRANTY - COMMERCIAL EQUIPMENT	Following Section 8

GENERAL INFORMATION

1.1 INTRODUCTION

Your mower was built to the highest standards in the industry. However, the prolonged life and maximum efficiency of your mower depends on you following the operating, maintenance and adjustment instructions in this manual.

If additional information or service is needed, contact your Scag Power Equipment Dealer.

We encourage you to contact your dealer for repairs. All Scag dealers are informed of the latest methods to service this equipment and provide prompt and efficient service in the field or at their service shop. They carry a full line of Scag service parts.

- IMPORTANT -

The replacement of any part on this product by other than the manufacturer's authorized replacement part may adversely affect the performance, durability or safety of this product.

Use of other than original Scag replacement parts will void the warranty.

When ordering parts, always give the model and serial number of your mower. The serial number plate is located on the frame of the machine between the engine and hydraulic pump where shown in Figure 1-1.

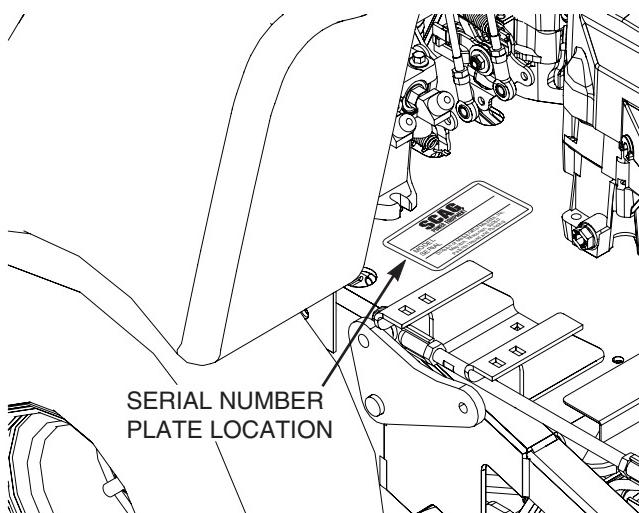


Figure 1-1. Mower Serial Number Plate Location

USE ONLY SCAG APPROVED ATTACHMENTS AND ACCESSORIES.

Attachments and accessories manufactured by companies other than Scag Power Equipment are not approved for use on this machine. See Section 8-1.

WARNING

For pictorial clarity, some illustrations and figures in this manual may show shields, guards or plates open or removed. Under no circumstances should your mower be operated without these devices in place.

All information is based upon product information available at the time of approval for printing. Scag Power Equipment reserves the right to make changes at any time without notice and without incurring any obligation.

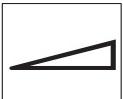
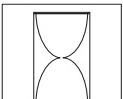
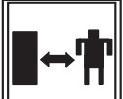
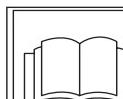
1.2 DIRECTION REFERENCE

The “Right” and “Left”, “Front” and “Rear” of the machine are referenced from the operator’s right and left when in the normal operating position and facing the forward travel direction.

1.3 SERVICING THE ENGINE AND DRIVE TRAIN COMPONENTS

The detail servicing and repair of the engine and transmission are not covered in this manual; only routine maintenance and general service instructions are provided. For service of these components during the limited warranty period, it is important to contact your Scag dealer or find a local authorized servicing agent of the component manufacturer. **Any unauthorized work done on these components during the warranty period may void your warranty.**

1.4 SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	Choke		Transmission
	Parking Brake		Spinning Blade
	On/Start		Spring Tension on Idler
	Off/Stop		Oil
	Falling Hazard		Thrown Object Hazard
	Fast		Slow
	Continuously Variable - Linear		Cutting Element - Basic Symbol
	Pinch Point		Cutting Element - Engage
	Hour meter/Elapsed Operating Hours		Cutting Element - Disengage
	Crush Hazard.		CE Mark
	Keep Bystanders Away		Read Operator's Manual

Section 2

SAFETY INFORMATION

2.1 INTRODUCTION

Your mower is only as safe as the operator. Carelessness or operator error may result in serious bodily injury or death. Hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of the personnel involved in the operation, transport, maintenance and storage of the equipment. Make sure every operator is properly trained and thoroughly familiar with all of the controls before operating the mower. The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

READ THIS OPERATOR'S MANUAL BEFORE ATTEMPTING TO START YOUR MOWER.

A replacement manual is available from your authorized Scag Service Dealer or by contacting Scag Power Equipment, Service Department at P.O. Box 152, Mayville, WI 53050 or contact us via the Internet at www.scag.com. The manual for this machine can be downloaded by using the model and serial number or use the contact form to make your request. Please indicate the complete model and serial number of your Scag product when requesting replacement manuals.

2.2 SIGNAL WORDS



This symbol means “**Attention! Become Alert! Your Safety is Involved!**” The symbol is used with the following signal words to attract your attention to safety messages found on the decals on the machine and throughout this manual. The message that follows the symbol contains important information about safety. To avoid injury and possible death, carefully read the message! Be sure to fully understand the causes of possible injury or death.

SIGNAL WORD:

It is a distinctive word found on the safety decals on the machine and throughout this manual that alerts the viewer to the existence and relative degree of the hazard.

DANGER

The signal word “DANGER” denotes that an extremely hazardous situation exists on or near the machine that could result in high probability of death or irreparable injury if proper precautions are not taken.

WARNING

The signal word “WARNING” denotes that a hazard exists on or near the machine that can result in injury or death if proper precautions are not taken.

CAUTION

The signal word “CAUTION” is a reminder of safety practices on or near the machine that could result in personal injury if proper precautions are not taken.

Your safety and the safety of others depends significantly upon your knowledge and understanding of all correct operating practices and procedures of this machine.

2.3 BEFORE OPERATION CONSIDERATIONS

WARNING

**Check all hydraulic connections for tightness.
Inspect all hydraulic hoses and / or lines to ensure
they are in good condition before operating.**

1. NEVER allow children to operate this mower. Do not allow adults to operate this machine without proper instructions.
2. Do not mow when children and/or others are present. Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator. Be alert and turn machine off if a child enters the area.

3. DO NOT allow children to ride or play on the machine, it is not a toy.
4. Clear the area to be mowed of objects that could be picked up and thrown by the cutter blades.
5. DO NOT carry passengers.
6. DO NOT operate the machine under the influence of alcohol or drugs.
7. If the operator(s) or mechanic(s) cannot read English or Spanish, it is the owner's responsibility to explain this material to them.
8. DO NOT wear loose fitting clothing. Loose clothing, jewelry or long hair could get tangled in moving parts. Do not operate the machine wearing shorts; always wear adequate protective clothing including long pants. Wearing safety glasses, safety shoes and a helmet is advisable and is required by some local ordinances and insurance regulations.

WARNING

Always wear hearing protection. Operating this machine over prolonged periods of time can cause loss of hearing.

9. Keep the machine and attachments in good operating condition. Keep all shields and safety devices in place. If a shield, safety device or decal is defective or damaged, repair or replace it before operating the machine.

WARNING

This machine is equipped with an interlock system intended to protect the operator and others from injury. This is accomplished by preventing the engine from starting unless the deck drive is disengaged, the neutral lock lever is in the neutral lock position, and the operator is in the operating position. The system shuts off the engine if the operator releases the left hand steering lever with the deck drive engaged, the operator releases the left hand steering lever with the neutral lock lever in the drive position (D) or if the neutral lock lever is placed in the drive position (D) and the parking brake is applied. Never operate equipment with the interlock system disconnected or malfunctioning.

10. Be sure the interlock switches are functioning correctly.
11. Fuel is flammable; handle it with care. Fill the fuel tank outdoors. Never fill it indoors. Use a funnel or spout to prevent spillage. Clean up any spillage before starting the engine.
12. DO NOT add fuel to a running or hot engine. Allow the engine to cool for several minutes before adding fuel. Never fuel indoors or inside enclosed trailers.
13. Keep flammable objects (cigarettes, matches, etc.), open flames and sparks away from the fuel tank and fuel container. Use only approved containers.
14. Equipment must comply with the latest requirements per SAE J137 and/or ANSI/ASAE S279 when driven on public roads.
15. Do not operate without the side discharge chute installed and in the down position or with an optional grass catcher or mulch plate completely installed.
16. Check the blade mounting bolts at frequent intervals for proper tightness.
17. Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before starting the machine.

2.4 OPERATION CONSIDERATIONS

1. Know the function of all controls and how to stop quickly.

WARNING

DO NOT operate on steep slopes. Under no circumstances should the machine be operated on slopes greater than 20 degrees. See Figure 2-1 to determine approximate slope of area to be mowed. ALWAYS FOLLOW OSHA APPROVED OPERATION.

2. Reduce speed and exercise extreme caution on slopes and in sharp turns to prevent tipping or loss of control. Be especially cautious when changing directions on slopes.
3. Stay two cut widths away from slopes, drop offs, ditches and retaining walls.
4. To prevent tipping or loss of control, start and stop smoothly, avoid unnecessary turns and travel at reduced speed.

Section 2

5. Immediately apply the parking brake if you lose steering control while operating. Inspect the machine and correct the problem before continuing to operate.
6. When using any attachment, never direct the discharge of material toward bystanders or allow anyone near the machine while in operation.
7. Start the engine with the operator in the operating position, cutter blades are disengaged, parking brake is engaged, and the neutral lever is in neutral.
8. If the mower discharge ever plugs, shut off the engine, remove the ignition key, and wait for all movement to stop before removing the obstruction.

WARNING

DO NOT use your hand to dislodge the clogged discharge chute. Use a stick or other device to remove clogged material after the engine has stopped running and the blades have stopped turning.

9. Be alert for holes, rocks, roots and other hidden hazards in the terrain. Keep away from any drop offs. Beware of overhead obstructions (low limbs, etc.), underground obstacles (sprinklers, pipes, tree roots, etc.). Cautiously enter a new area. Be alert for hidden hazards.
10. Disengage power to cutter deck before backing up. Do not mow in reverse unless absolutely necessary and then only after observation of the entire area behind the mower. If you must mow in reverse, maintain a constant lookout to the rear of the machine and mow slowly.
11. DO NOT turn sharply. Use care when backing up.
12. Disengage power to cutter deck before crossing roads, walks or gravel drives.
13. Mow only in daylight or good artificial light.
14. NEVER raise the deck with the blades engaged.
15. Take all possible precautions when leaving the machine unattended, such as disengaging the mower, stopping the engine, and removing the key.
16. Disengage power to the attachments when transporting or when not in use.
17. The machine and attachments should be stopped and inspected for damage after striking a foreign object, and damage should be repaired before restarting and operating the machine.

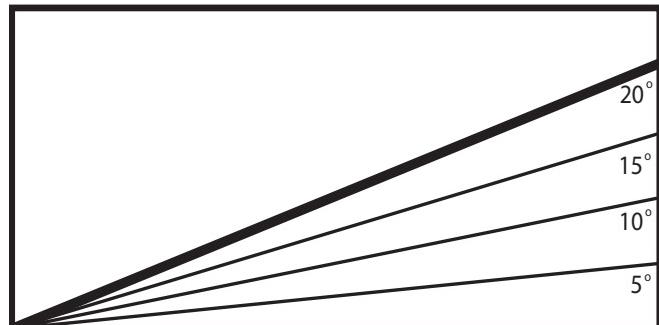


Figure 2-1. Slope Angle Graph

CAUTION

Do not touch the engine or the muffler while the engine is running or immediately after stopping. These areas may be hot enough to cause a burn.

DANGER

DO NOT run the engine inside a building or a confined area without proper ventilation. Exhaust fumes are hazardous and contain carbon monoxide which can cause brain injury and death.

18. Keep hands and feet away from cutter blades and moving parts. Contact can injure.
19. Transport the mower using a heavy duty trailer or truck. Ensure the trailer or truck has all of the necessary lighting and markings as required by laws, codes, and ordinances. Secure a trailer with a safety chain.
20. Be cautious when loading and unloading onto trailers or trucks. Use only a full width ramp. Always back on and drive off a trailer.
21. When transporting the mower, make sure the neutral lock lever is in neutral lock, the engine is off with the key removed, the parking brake is engaged and the wheels have been blocked.

22. Tie the mower down securely using the tie down points located on the front and rear of the machine. See Figure 2-2 and 2-3. Secure using straps, chains, cable, or ropes. Both front and rear straps must be directed down and outward from machine.

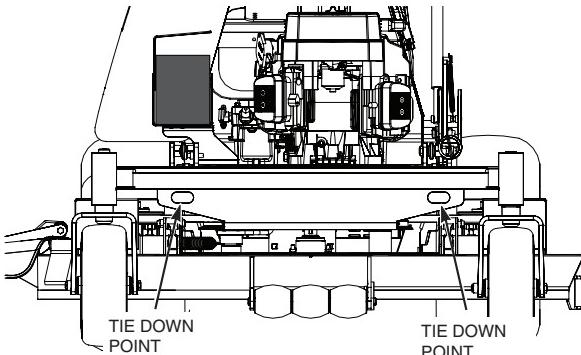


Figure 2-2. Front Tie Down Points

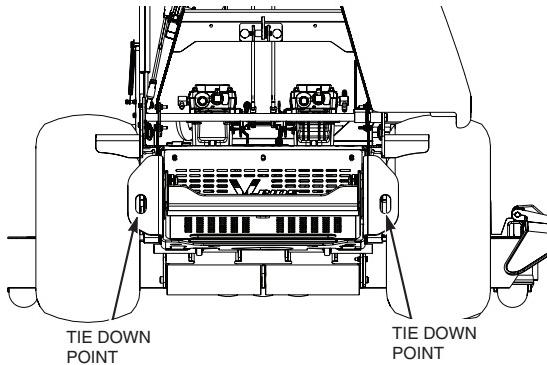


Figure 2-3. Rear Tie Down Points

23. Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
24. NEVER leave the machine running unattended.

2.5 MAINTENANCE CONSIDERATIONS & STORAGE

1. Never make adjustments to the machine with the engine running unless specifically instructed to do so. If the engine is running, keep hands, feet, and clothing away from moving parts.
2. Place the neutral lock lever in neutral lock, engage the parking brake, stop engine and remove key or disconnect spark plug wire to prevent accidental starting of the engine when servicing or adjusting the machine. Wait for all movement to stop before adjusting, cleaning or repairing.
3. Remove spark plug wire before making any repairs.
4. Keep all nuts, bolts and screws tight, to ensure the machine is in safe working condition. Check blade mounting bolts frequently to be sure they are tight.

5. Do not change the engine governor settings or overspeed the engine. See the engine operator's manual for information on engine settings.
6. To reduce fire hazard, keep the cutting units, drives, muffler and engine free of grass, leaves, excessive grease, oil and dirt.
7. Park the machine on level ground.
8. NEVER allow untrained personnel to service the machine.
9. Use care when checking blades. Use a Blade Buddy, wrap the blade(s) or wear gloves and USE CAUTION when servicing blades. Only replace blades. NEVER straighten or weld blades.
10. Keep all parts in good working condition. Replace all worn or damaged decals.
11. Use jack stands to support components when required.
12. Carefully release pressure from components with stored energy.

⚠️ WARNING

Hydraulic fluid is under high pressure and can penetrate skin causing injury. If hydraulic fluid is injected into the skin, it must be surgically removed within a few hours by a doctor or gangrene may result.

Keep body and hands away from pinholes or nozzles that eject hydraulic fluid under high pressure. Use paper or cardboard and not hands to search for leaks.

Safely relieve all pressure from the hydraulic system by placing the control levers in the neutral lock position and shutting off the engine before performing any work on the hydraulic system.

If you need service on your hydraulic system, please see your authorized Scag dealer.

13. Let the engine cool before storing.
14. DO NOT store the machine near an open flame.
15. Shut off fuel while storing or transporting.
16. DO NOT store fuel near flames or drain indoors.

Section 2

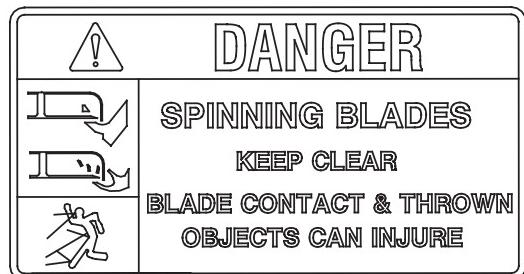
2.6 USING A SPARK ARRESTOR

The engine in this machine is not equipped with a spark arrestor muffler. It is in violation of California Public Resource Code Section 4442 to use or operate this engine on or near any forest covered, brush covered or grass covered land unless the exhaust system is equipped with a spark arrestor meeting any applicable local or state laws. Other states or federal areas may have similar laws. Check with your state or local authorities for regulations pertaining to these requirements.

2.7 SPARK IGNITION SYSTEM

This spark ignition system complies with Canadian ICES-002.

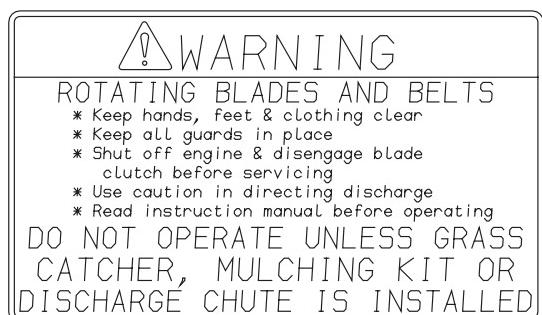
2.8 SAFETY AND INSTRUCTIONAL DECALS



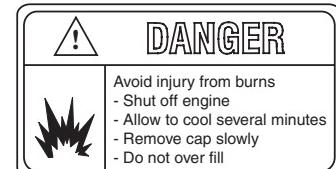
483407



483402



483406



Molded in Fuel Tank



483900

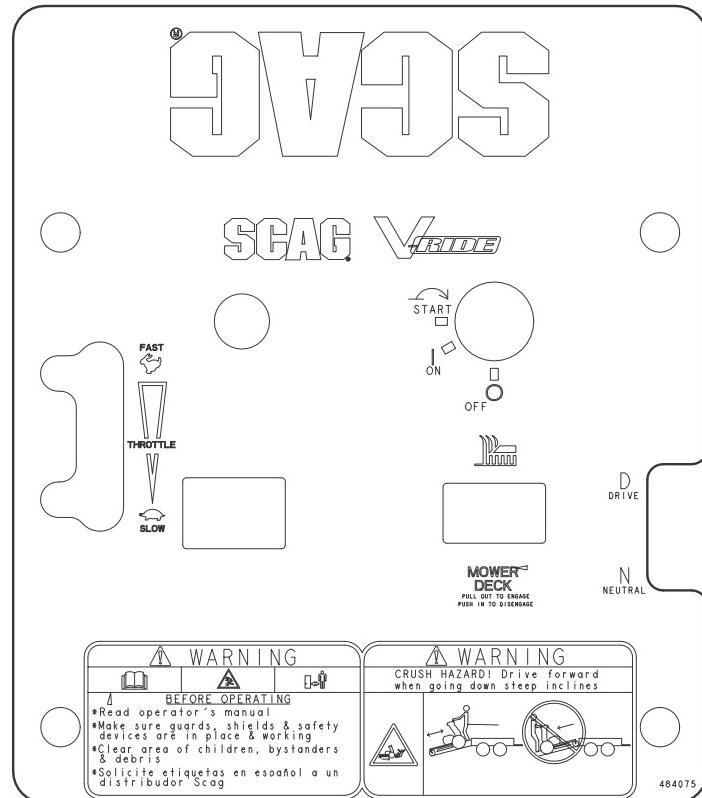
(supplied with California models only)



483405



484281



484075

Section 3**SPECIFICATIONS****3.1 ENGINE**

General Type	Heavy Duty Industrial/Commercial Gasoline
Model:	
Scag Model SVR36A-600FX	Kawasaki FX600V
Scag Model SVR48V-691FX	Kawasaki FX691V
Scag Model SVR52V-730FX	Kawasaki FX730V
Scag Model SVR61V-801FX	Kawasaki FX801V
Displacement:	
Kawasaki FX600V	603cc
Kawasaki FX690V	726cc
Kawasaki FX730V	726cc
Kawasaki FX801V	852cc
Cylinders.....	2 with Cast-Iron Sleeves
Governor.....	Mechanical Type with Variable Speed Control Set At 3600 RPM (+/- 100 RPM)
Idle Speed:	
Kawasaki	1550 RPM (+/- 150 RPM)
Fuel.....	Non-Leaded Gasoline with a Minimum Octane Rating of 87
Oil Pump.....	varies - see engine manufacturer's specifications
Starter:	
Kawasaki	Electric Starting with solenoid shift starter

3.2 ELECTRICAL

Starter.....	12-Volt Electric Ring Gear Type, Key and Solenoid Operated Interlock
Interlock Switches.....	Operator Presence, Mower Engagement (BBC), Neutral Lever
Instrument Panel	Key Switch, Throttle Lever, Choke Lever, PTO Switch, Hour Meter and Neutral Lever

3.3 ENGINE DECK

Drive System	Hydraulic Drive with Two Variable Displacement Pumps and Two Cast-Iron High Torque Wheel Motors
Hydraulic Pumps	Two Hydro-Gear PG Series 10 cc. (36/48/52) or PK Series 12 cc. (61) Hydraulic Pumps with Dump Valves for movement without the engine running
Hydraulic Drive Motors	Two Parker Model TE Cast-Iron Wheel Motors
Steering/Travel Control	Twin Lever Steering Control with Individual Control to Each Wheel
Parking Brake	Lever Actuated Linkage to Brakes on Both Drive Wheels
Wheels:	
(2) Front Caster	(36 / 48 / 52) - 11 x 4-5 Flat Free w/Roller Bearings (61) - 13 x 6.50 - 6 Flat-Free w/Roller Bearings
(2) Drive -	(36) 18 x 8.5 - 8 Four-Ply Pneumatic Tubeless, Radius Edge (48 / 52 / 61) 20 x 10 - 8 Four-Ply Pneumatic Tubeless, Radius Edge
Tire Pressure:	
Front Caster.....	Flat-Free
Drive	12 PSI
Fuel Tank	5 Gallon (36 / 48) or 8 Gallon (52 / 61) Seamless Polyethylene Tank with Large Opening, Fuel Cap and Fuel Gauge
Travel Speed:	
Forward	(36) - 0 up to 7.7 MPH (48 / 52) - 0 up to 8.5 MPH (61) - 0 up to 11 MPH
Reverse	0 up to 6.0 MPH
-NOTE- The machine will travel at speeds up to 8.5 mph or 11 mph for transport purposes. For best cutting performance the forward travel speed should be adjusted depending upon the cutting conditions.	

3.4 CUTTER DECK

Type	Out-Front design with anti-scalp rollers
Construction	Tri-plate deck construction Top of deck consists of three steel plates totaling nearly 1/2" of steel, 7-gauge (3/16") deck skirt
True Cutting Width:	
36	35.5" (90.2 cm)
48	48" (122.0 cm)
52	52" (132.0 cm)
61	61" (155.0 cm)
Cutting Height Adjustment.....	Adjustment from, 1-1/2" to 4-1/2" in 1/4" increments
Cutter Blades.....	0.197 in. Thick, Milled Edge, Wear Resistant Marbain™
Blade Engagement.....	Electric Blade Engagement Clutch with Control Panel Switch Connected to the Cutter Deck through a Belt
Discharge Opening.....	Extra Wide Discharge Opening with Spring-Loaded Discharge Chute
Discharge Chute.....	Black, Polypropylene (Plastic), Flexible
Spindles.....	Cast-Iron Housing, Tapered Roller Bearings with Top Access Grease Fitting and Grease Overfill Relief Poppet
Spindle Pulleys	Split Steel with Tapered Locking Hub
Cutter Deck Belts.....	B-section with Kevlar Cords
Electric Clutch Type	Ogura Heavy Duty PTO Clutch Brake

3.5 WEIGHTS AND DIMENSIONS**36 48 / 52 61V**

Length (with foot plate down).....	71"	69-1/2" / 71-3/4"	75-1/2"
Length (with foot plate in transport position).....	67"	65-1/2" / 67-3/4"	71-1/2
Tracking Width	35-1/2"	41-3/4"	46-3/4"
Overall Width w/chute down	47-3/4"	61-1/4" / 65-1/4"	73-1/2"
Overall Width w/chute up	37-1/4"	49-3/4" / 53-3/4"	62-3/4"
Overall Height.....	46-1/2"	47-1/2"	47-1/2"
Operating Weight.....	775#	860#	975#

3.6 PRODUCTIVITY**36 48 / 52 61**

Cutting Width	36"	48" / 52"	61"
Acres Per Day	14	18.6 / 20.2	23.7

The preceding chart will aid you in determining how many acres your Scag mower will cut per day. The chart is an estimate based on 8 hours per day cutting time at 6 MPH with a 20% allowance for overlap and turns.

OPERATING INSTRUCTIONS

CAUTION

Do not attempt to operate this mower unless you have read this manual. Learn the location and purpose of all controls and instruments before you operate this mower.

4.1 CONTROLS AND INSTRUMENT IDENTIFICATION

Before operating the mower, familiarize yourself with all mower and engine controls. Knowing the location, function and operation of these controls is important for safe and efficient operation of the mower.

- 1. Ignition Switch (Figure 4-1).** The ignition switch is used to start the engine and has three positions; OFF, ON, and START.

- 2. Mower Deck Switch (Figure 4-1).** Used to engage and disengage the mower drive system. Pulling up on the switch will engage the deck drive. Pushing down on the switch will disengage the deck drive.
- 3. Engine Choke Control (Figure 4-1).** Used to start a cold engine.
- 4. Engine Throttle Control (Figure 4-1).** Used to control the engine speed. Pushing the lever forward increases engine speed. Pulling the lever back decreases engine speed. Full back position is the IDLE position. Full forward is the cutting position.
- 5. Hourmeter (Figure 4-1).** Indicates the number of hours the engine has been operated. It operates whenever the engine is running. Has preset maintenance reminders for engine and hydraulic system oil changes. Will start flashing scheduled maintenance 2 hours before preset time and continue flashing until 2 hours after. Automatically resets.

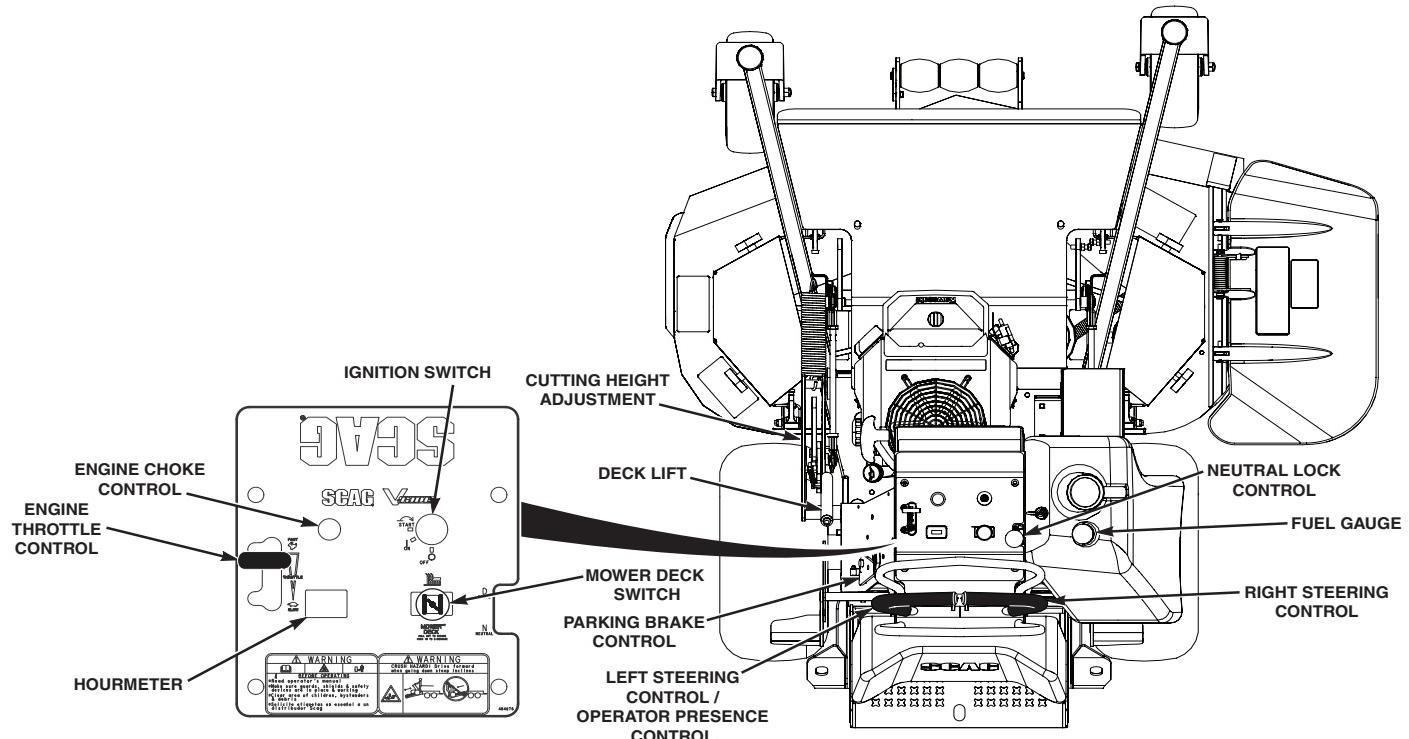


Figure 4-1. Controls and Instruments

6. Left Steering Control / Operator Presence Control (Figure 4-1).

Used to control the mower's left wheel when traveling forward or reverse. See Section 4.5 for further details regarding the mower's travel controls. The operator presence control must be depressed before the neutral lock lever is shifted out of the neutral position (N) or engaging the mower deck.

7. Right Steering Control (Figure 4-1). Used to control the mower's right wheel when traveling forward or reverse. See Section 4.5 for further details regarding the mower's travel controls.**8. Neutral Lock Lever (Figure 4-1).** Used to disengage the mower drive in the neutral lock position (N) or to engage to the mower's drive in the drive position (D). See Section 4.5 for further details regarding the mower's travel controls.**9. Parking Brake Control (Figure 4-1).** Used to engage and disengage the parking brakes. Pull the lever back to engage the parking brakes. Push the lever forward to disengage the parking brakes.**10. Deck Lift Lever (Figure 4-1).** Used to raise and lower the cutter deck.**11. Cutting Height Adjustment (Figure 4-1).** Used to set the cutter deck at the desired cutting height.**12. Fuel Tank Gauge (Figure 4-1).** Indicates the amount of fuel in the fuel tank.

4.2 SAFETY INTERLOCK SYSTEM

The mower is equipped with an interlock system intended to protect the operator and others from injury. This is accomplished by preventing the engine from starting unless the deck drive is disengaged, the parking brake is engaged and the neutral lock lever is in the neutral lock position. The system shuts off the engine if the operator releases the left hand steering lever with the deck drive engaged, the operator releases the left hand steering lever with the neutral lock lever in the drive position (D) or if the neutral lock lever is placed in the drive position (D) and the parking brake is applied. Never operate equipment with the interlock system disconnected or malfunctioning.

WARNING

Never operate the mower with the interlock system disconnected or malfunctioning. Do not disengage or bypass any switch; injury to yourself and others or property damage could result.

4.3 INITIAL RUN-IN PROCEDURES

FIRST DAY OF USE OR APPROXIMATELY 20 HOURS

1. Check all belts for proper alignment and wear at 2, 4 and 8 hours.
2. Change the engine oil and oil filter after the first 20 hours of operation. See Section 7.4.
3. Check oil level in the hydraulic system reservoir. See Section 7.3.
4. Check for loose hardware. Tighten as needed.
5. Check interlock system for proper operation. See Section 4.2.
6. Check tire pressure. Adjust pressure if necessary. See Section 7.10.

4.4 STARTING THE ENGINE

CAUTION

DO NOT USE STARTING FLUIDS. Use of starting fluids in the air intake system may be potentially explosive or cause a "runaway" engine condition that could result in engine damage and/or personal injury.

1. Be sure the fuel shutoff valve, located by the fuel tank, is completely open. See Section 7.5.
2. Place the neutral lock lever in the neutral position and disengage the the cutter blades .
3. Engage the parking brake.
4. If the engine is cold, choke the engine as needed.
5. Move the engine throttle control to about half engine speed.

Section 4

6. Turn the ignition key to the start position and start the engine.
7. Allow engine to warm before operating the mower.

4.5 GROUND TRAVEL AND STEERING

- IMPORTANT -

If you are not familiar with the operation of a machine with lever steering and/or hydrostatic transmissions, the steering and ground speed operations should be learned and practiced in an open area, away from buildings, fences, or obstructions. Practice until you are comfortable with the handling of the machine before attempting to mow. Learn the operation on flat ground before operating on slopes.

- IMPORTANT -

Start practicing with a slow engine speed and slow forward travel.

Learn to feather the steering controls to obtain a smooth operating action.

Practice operating the mower until you are comfortable with the controls before proceeding to mow.

FORWARD TRAVEL

To travel forward with the mower, disengage the parking brake, place your hand on the left hand steering control while placing the neutral lock lever in the drive (D) position. Slowly push the steering control levers forward an equal distance. The further the steering control levers are pushed forward, the greater the forward speed will be. To increase the speed, push the steering control levers forward and to decrease speed, pull the steering control levers back. See Figure 4-2.

To stop the forward travel completely, pull the steering control levers back to the neutral position.

To steer the mower to the left while traveling forward, pull the left steering control lever back. The further the steering control is pulled back, the quicker the mower will turn left. See Figure 4-3.

To steer the mower to the right while traveling forward, pull the right steering control lever back. The further the steering control is pulled back, the quicker the mower will turn right. See Figure 4-3.

- NOTE -

Smooth operation of the steering control levers will produce smooth mower operation. While learning the operation of the steering controls, keep the travel speed low.

REVERSE TRAVEL

CAUTION

Disengage power to the mower before backing up. Do not mow in reverse unless absolutely necessary and then only after observation of the entire area behind the mower.

CAUTION

Before backing up, observe the rear for persons and obstructions. Clear the area before backing up. Possible injury or property damage could occur.

To travel in reverse, pull both steering control handles back. Keep the travel speed low while traveling in reverse.

- NOTE -

The mower may not travel straight in reverse. Slight adjustments may need to be made using the steering controls.

To steer left while traveling in reverse, allow the left steering control lever to move forward. The further the control is allowed to move forward, the quicker the mower will turn left.

To steer right while traveling in reverse, allow the right steering control lever to move forward. The further the control is allowed to move forward, the quicker the mower will turn right.

To stop the reverse travel, allow the steering control levers to return to the neutral position. If the mower is to be parked, engage the parking brake and place the neutral lock lever in the neutral (N) position.

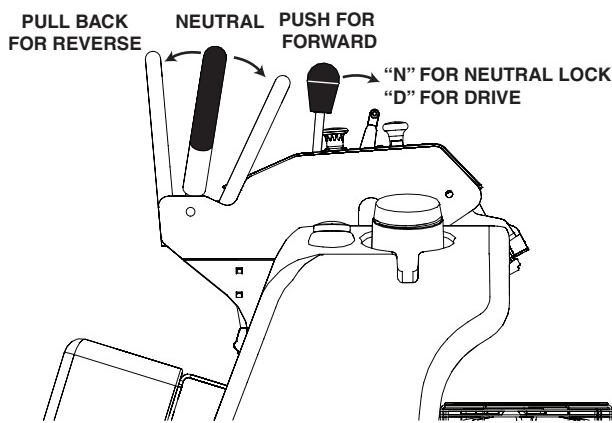
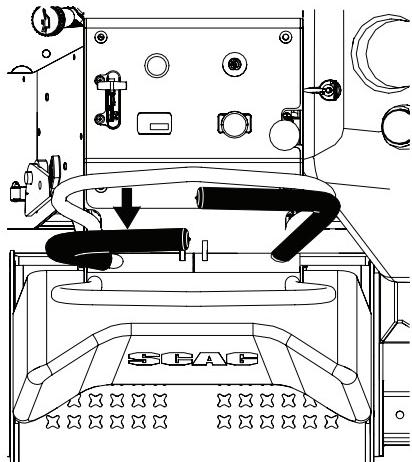
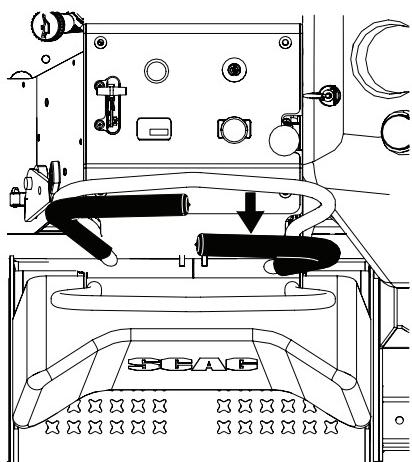


Figure 4-2. Forward / Reverse Controls



WHILE TRAVELING FORWARD, PULL BACK
ON LEFT STEERING CONTROL TO STEER LEFT

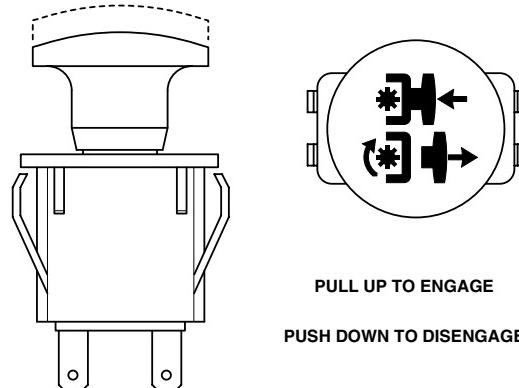


WHILE TRAVELING FORWARD, PULL BACK
ON RIGHT STEERING CONTROL TO STEER RIGHT

Figure 4-3. Steering Controls

4.6 ENGAGING THE DECK DRIVE (CUTTER BLADES)

1. Set the throttle at about 3/4 speed. Do not attempt to engage the deck drive at high speed as this shortens the electric clutch life — use only moderate engine speed when engaging the deck drive.
2. Engage the deck drive by pulling out on the yellow switch, located on the instrument panel, to the engage position. See Figure 4-4.



390S0138

Figure 4-4. Cutter Engage Switch

CAUTION

Disengage power to the mower before backing up. Do not mow in reverse unless absolutely necessary and then only after observation of the entire area behind the mower.

CAUTION

Before backing up, observe behind the mower for persons and obstructions. Clear the area before backing up. Possible injury or property damage could occur.

- NOTE -

A squealing noise may be heard when engaging or disengaging the deck drive. It is caused by the electric clutch plates meshing as the mower comes up to speed. This is normal.

Section 4

3. To disengage the deck drive, push the switch in to the disengage position.
4. Always operate the engine at full throttle to properly maintain cutting speed. If the engine starts to lug down, reduce the forward speed and allow the engine to operate at maximum RPM.

4.7 OPERATING PLATFORM

The machine can be operated with the platform in the raised or lowered position. However, caution must be used when operating the machine with the platform in the raised position, especially on an incline and/or when the grass is wet. Wet grass reduces traction and steering control.

WARNING

The operator platform is heavy and may cause injury when lowering and raising the operator platform. The platform may suddenly drop if not supported when the latch lever is released.

Do not put hands or fingers in the platform pivot area when lowering or raising the operator platform.

Make sure the operator platform is supported when the latch lever is released.

Make sure the latch lever secures the platform when folding it in the raised position.

Keep bystanders away when raising or lowering the operator platform.

Operating the machine with the platform in the raised position is recommended when:

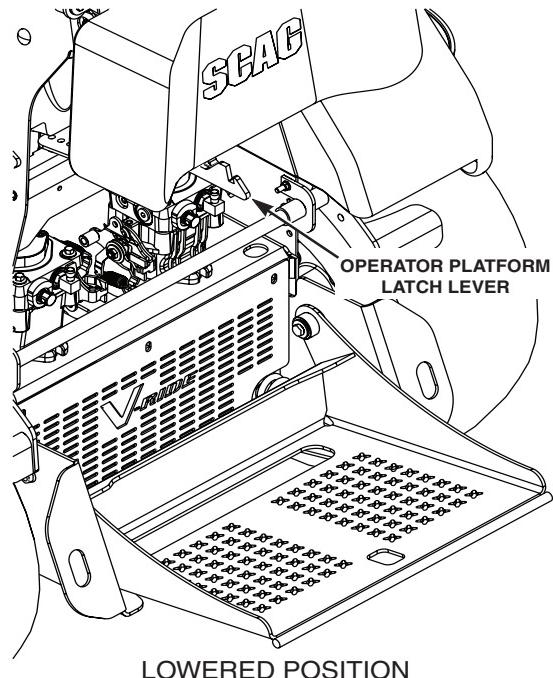
- Mowing in small or tight areas.
- In areas with low over hanging branches or obstacles.
- Loading the machine for transport.
- Driving up slopes.

To raise, pull upward on the platform and lock into place. The platform must be secured in the raised position by the latch. See Figure 4-5.

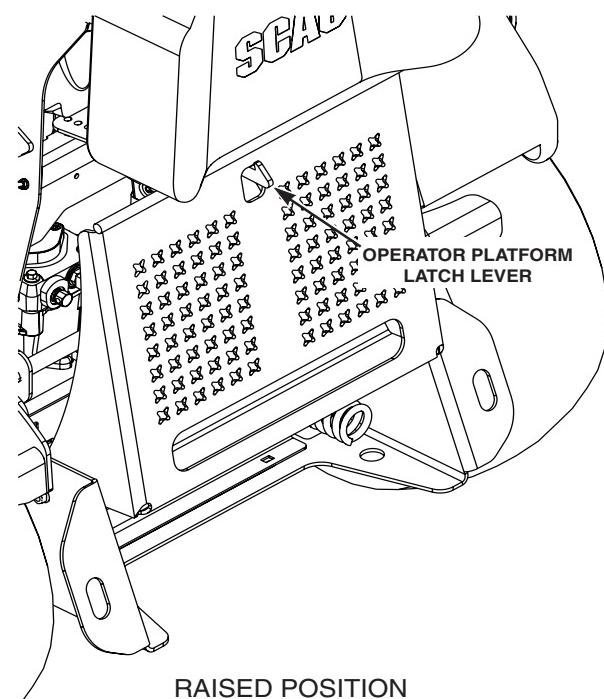
Operating the machine with the platform lowered is recommended when:

- Mowing most areas.
- Driving or mowing across slopes.
- Driving or mowing down slopes.

To lower, support the platform with your hand and push down on the latch lever to release the lock. See Figure 4-5.



LOWERED POSITION



RAISED POSITION

Figure 4-5. Operator Platform

4.8 HILLSIDE OPERATION

WARNING

DO NOT operate on steep slopes. Under no circumstances should the machine be operated on slopes greater than 20 degrees. See Figure 2-1, Page 5 to determine approximate slope of area to be mowed. ALWAYS FOLLOW OSHA APPROVED OPERATION.

1. This mower has been designed for good traction and stability under normal mowing conditions. However, caution must be used when traveling on slopes, especially when the grass is wet. Wet grass reduces traction and steering control.
2. Travel across a slope with the operator platform in the lowered position is recommended.
3. Stay two cut widths away from slopes, drop offs, ditches and retaining walls.
4. To prevent tipping or loss of control, do not start or stop suddenly, avoid unnecessary turns and travel at reduced speed. If tires lose traction, disengage blades and proceed slowly off the slope.
5. Travel up hill with the operator platform in the raised position.
6. Avoid sudden starts when mowing uphill. Sudden starts may cause the machine to tip backwards.
7. Loss of traction may occur when traveling down hill. Weight transfers to the front of the machine and may cause the drive wheels to slip causing loss of braking or steering.
8. Never back down hill.
9. Keep tires properly inflated.

4.9 PARKING THE MOWER

1. Park the machine on a flat, level surface only. Do not park the machine on an incline.
2. Disengage the cutter blades.
3. Shift the neutral lock lever into the neutral (N) position.
4. Engage the parking brake.
5. Slow the engine to idle speed.
6. Turn the ignition key to the OFF position and remove the key.

4.10 AFTER OPERATION

1. Wash the entire mower after each use. Do not use high pressure spray or direct the spray onto electrical components.

- IMPORTANT -

Do not wash a hot or running engine. Cold water will damage the engine. Use compressed air to clean the engine if it is hot.

2. Keep the entire mower clean to inhibit serious heat damage to the engine or hydraulic oil circuit.
3. Check the drive belts for proper alignment and any signs of wear. Correct and adjust if necessary.

DANGER

To avoid injury from burns, allow the mower to cool before removing the fuel tank cap and refueling.

4. After the mower has cooled down, fill the fuel tank with fresh, clean fuel at the end of every day of operation. See Engine Owner's Manual for proper octane requirements.
5. Check the tire pressure. Adjust pressure if necessary.

4.11 REMOVING CLOGGED MATERIAL

DANGER

ROTATING BLADES

NEVER PUT YOUR HANDS INTO THE DISCHARGE CHUTE FOR ANY REASON!

Shut off the engine and remove the key and only then use a stick or similar object to remove material if clogging has occurred.

1. If the discharge chute becomes clogged, shut off the engine and remove the ignition key. Using a stick or similar item, dislodge the clogged material. Then resume normal mowing.

Section 4

4.12 MOVING MOWER WITH ENGINE STOPPED

To "free-wheel" or move the mower around without the engine running, place the dump valve levers in the FREE-WHEEL position. Disengage the parking brake and move the mower by hand. The dump valve levers must be returned to the DRIVE position and torqued to 7-10 ft/lbs to drive the mower.

4.13 RECOMMENDATIONS FOR MOWING

1. It is recommended to operate the machine with the operator platform in the lowered position.
2. Do not mow with dull blades. A dull blade will tear grass, resulting in poor lawn appearance and reduced mowing power.

WARNING

DO NOT operate without Discharge Chute, Mulching Kit, or entire Grass Catcher properly installed.

3. The discharge chute must not be removed and must be kept in the lowest position to deflect grass clippings and thrown objects downward. Direct the side discharge away from sidewalks or streets to minimize cleanup of clippings. When mowing close to obstacles, direct the discharge away from the obstacles to reduce the chance of property damage by thrown objects.
4. Cut grass when it is dry and not too tall. Do not cut grass too short (cut off 1/3 or less of existing grass for best appearance). Mow frequently.
5. Keep mower and discharge chute clean.
6. When mowing wet or tall grass, mow the grass twice. Raise the mower to the highest setting for the first pass and then make a second pass to the desired height.
7. Use a slow travel speed for trimming purposes.
8. Operate the engine at full throttle for best cutting. Mowing with a lower RPM causes the mower to tear the grass. The engine is designed to be operated at full speed.

9. Use the alternate stripe pattern for best lawn appearance. Vary the direction of the stripe each time the grass is mowed to avoid wear patterns in the grass.

4.14 ADJUSTING CUTTING HEIGHT

The mower deck can be adjusted from a height of 1-1/2 inch to 4-1/2 inches at 1/4-inch intervals. To adjust the cutting height:

WARNING

DO NOT adjust the cutting height with the mower blades rotating. Disengage the power to the cutter blades, put the neutral lock lever in the neutral position, apply the parking brake and then adjust cutting height.

1. Disengage the power to the cutter blades.
2. Pull on the cutter deck lift lever all the way backward until it locks in place. See Figure 4-6.
3. Insert the lanyard pin into the cutting height index at the desired cutting height. Pull backward on the cutter deck lift lever, push and hold the lock button. See Figure 4-6. Slowly release the cutter deck lift lever. A deck height decal is located on the cutting height index as an aid in adjusting the deck to the desired height.

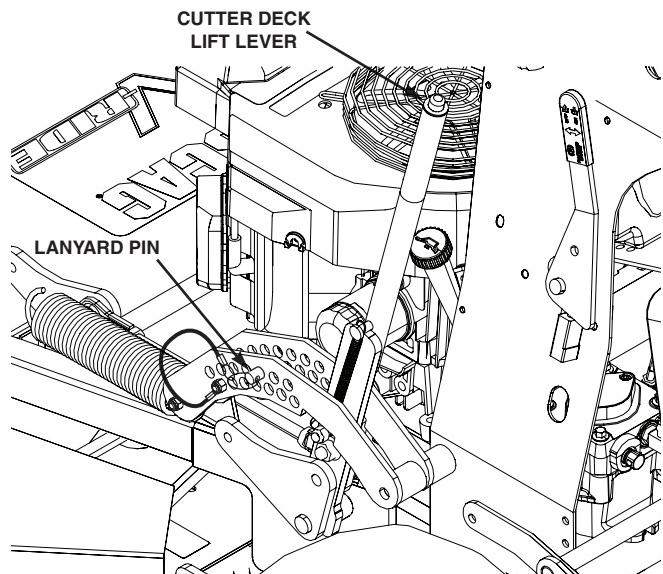
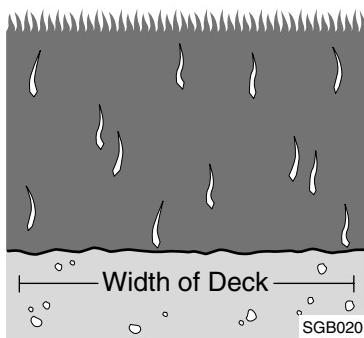
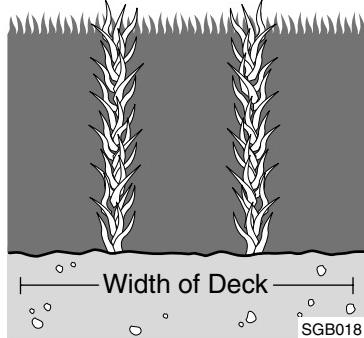
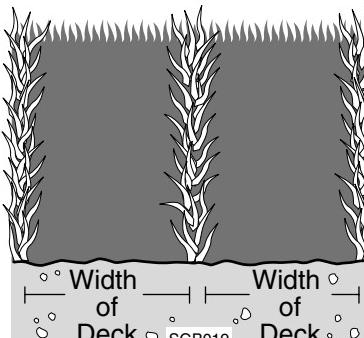


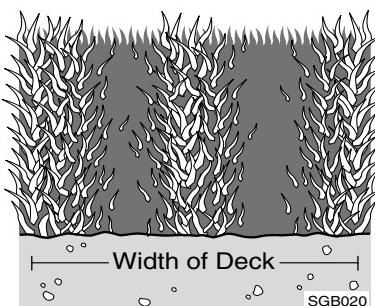
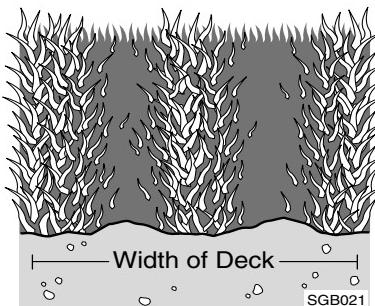
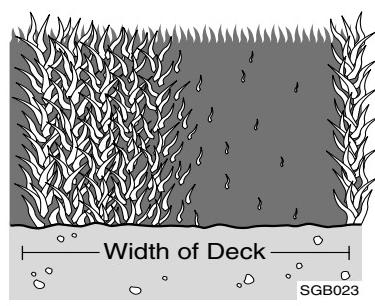
Figure 4-6. Adjusting Cutting Height

TROUBLESHOOTING CUTTING CONDITIONS

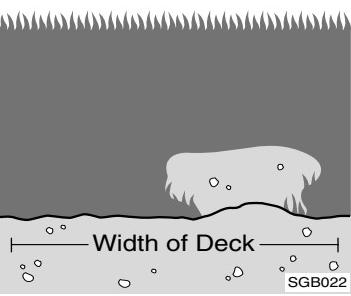
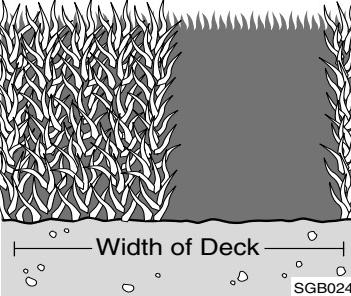
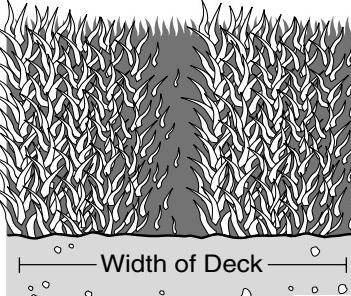
CONDITION	CAUSE	CURE
STRINGERS - OCCASIONAL BLADES OF UNCUT GRASS  Width of Deck SGB020	Low engine RPM Ground speed too fast Wet grass Dull blades, incorrect sharpening Deck plugged, grass accumulation Belts slipping	Run engine at full RPM Slow speed to adjust for conditions Cut grass after it has dried out Sharpen blades Clean underside of deck Adjust belt tension
STREAKING - STRIPS OF UNCUT GRASS IN CUTTING PATH  Width of Deck SGB018	Dull, worn blades Incorrect blade sharpening Low engine RPM Belt slipping Deck plugged, grass accumulation Ground speed too fast Wet grass Bent blades	Sharpen blades Sharpen blades Run engine at full RPM Adjust belt tension Clean underside of deck Slow speed to adjust for conditions Cut grass after it has dried out Replace blades
STREAKING - STRIPS OF UNCUT GRASS BETWEEN CUTTING PATHS  Width of Deck Width of Deck SGB019	Not enough overlapping between rows	Increase the overlap of each pass

Section 5

TROUBLESHOOTING CUTTING CONDITIONS (CONT'D)

CONDITION	CAUSE	CURE
UNEVEN CUT ON FLAT GROUND - WAVY HIGH-LOW APPEARANCE, SCALLOPED CUT, OR ROUGH CONTOUR  SGB020	Lift worn from blade	Replace blade
	Blade upside down	Mount with cutting edge toward ground
	Deck plugged, grass accumulation	Clean underside of deck
	Too much blade angle (deck pitch)	Adjust pitch and level
	Deck mounted improperly	See your authorized SCAG dealer
	Bent spindle area	See your authorized SCAG dealer
	Dull blade	Sharpen blade
UNEVEN CUT ON UNEVEN GROUND-WAVY APPEARANCE, HIGH-LOW SCALLOPED CUT, OR ROUGH CONTOUR  SGB021	Uneven ground	May need to reduce ground speed, raise cutting height, and/or change direction of cut
SLOPING RIDGE ACROSS WIDTH OF CUTTING PATH  SGB023	Tire pressures not equal	Check and adjust tire pressure
	Wheels uneven	Check and adjust tire pressure
	Deck mounted incorrectly	See your authorized SCAG dealer
	Deck not level side-to side	Check for level and correct

TROUBLESHOOTING CUTTING CONDITIONS (CONT'D)

CONDITION	CAUSE	CURE
SCALPING - BLADES HITTING DIRT OR CUTTING VERY CLOSE TO THE GROUND  SGB022	Low tire pressures	Check and adjust pressures
	Ground speed too fast	Slow speed to adjust for conditions
	Cutting too low	May need to reduce ground speed, raise cutting height, change direction of cut, and/or change pitch and level
	Rough terrain	May need to reduce ground speed, raise cutting height, and/or change direction of cut
	Ground speed too fast	Slow speed to adjust for conditions
	Wet grass	Cut grass after it has dried out
STEP CUT - RIDGE IN CENTER OF CUTTING PATH  SGB024	Blades not mounted evenly	Adjust pitch and level
	Bent blade	Replace blade
	Internal spindle failure	See your authorized SCAG dealer
	Mounting of spindle incorrect	See your authorized SCAG dealer
SLOPE CUT - SLOPING RIDGES ACROSS WIDTH OF CUTTING PATH  SGB025	Bent spindle mounting area	See your authorized SCAG dealer
	Internal spindle failure	See your authorized SCAG dealer
	Bent deck housing	See your authorized SCAG dealer

Section 6

ADJUSTMENTS

6.1 PARKING BRAKE ADJUSTMENT

WARNING

DO NOT operate the mower if the parking brake is not operable. Possible severe injury could result.

The parking brake linkage should be adjusted whenever the parking brake lever is placed in the "ENGAGE" position and the parking brake will allow the mower to move. If the following procedures do not allow you to engage the parking brake properly, contact your Scag dealer for further brake adjustments.

- Park the machine on a flat, level surface. Block the wheels to prevent the machine from moving.

CAUTION

Adjust the brake only enough to hold the machine. Excessive force may cause damage to the machine or brake components.

- Release the parking brake lever.
- Look for a gap (approximately 1/4") between the right side drive tire and the brake bellcrank. See Figure 6-1. Loosen the jam nuts and adjust the brake linkage rod until the there is a 1/4" gap between the tire and right hand brake bellcrank. The right hand side must be adjusted first before adjusting the brake weldment on the left side.
- With the brake released, loosen the mounting bolt securing the left hand brake weldment to the brake bellcrank. Adjust the left hand brake weldment until there is a 1/4" gap between the tire and the brake weldment.

- NOTE -

If this procedure does not achieve proper brake adjustment, please contact your authorized Scag dealer.

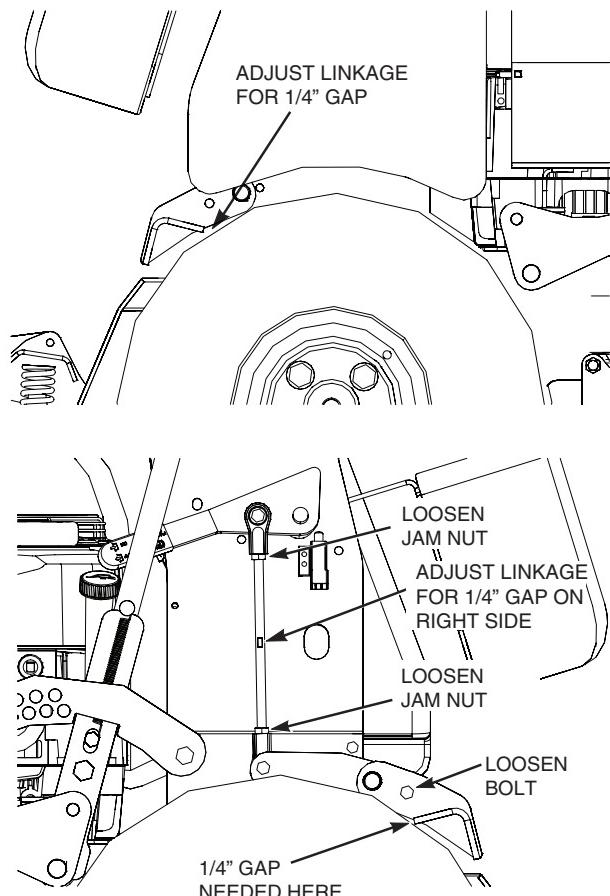


Figure 6-1. Brake Adjustment

6.2 TRAVEL ADJUSTMENT

Neutral or tracking adjustments will need to be made if:

- The steering control is in the neutral position and the machine creeps forward or backward. (Neutral Adjustment)
- The steering control is in the full forward position and the mower pulls to one side or the other when traveling in a forward position. (Tracking Adjustment)

NEUTRAL ADJUSTMENT

-NOTE-

Neutral has been set by your Scag dealer at the time of set up and normally does not need to be adjusted. If, however, you find that the neutral has come out of adjustment, follow the procedure below.

1. Be sure the dump valves are in the run position and the speed control lever is in the neutral lock position.
2. With an operator in the operating position, park the machine on a flat level surface, start the engine and disengage the parking brake.
3. Run the engine at full operating speed and check if the machine creeps forward or backwards.
4. Adjust the RH wheel by loosening the jam nuts on the steering control rod and turning the rod until the drive wheel turns in the forward direction. Turn the rod back until the drive wheel stops moving. Turn the rod an additional 1/2 turn. See Figure 6-2.

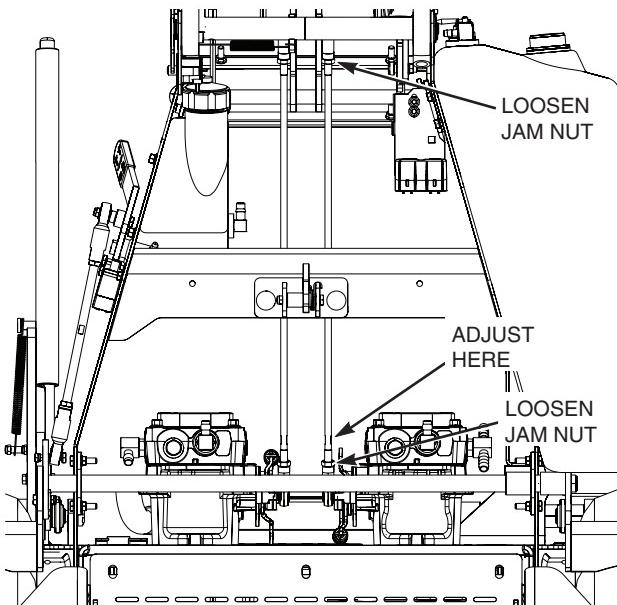


Figure 6-2. Tracking Adjustment Right Side

5. Repeat for the LH wheel. See Figure 6-3.

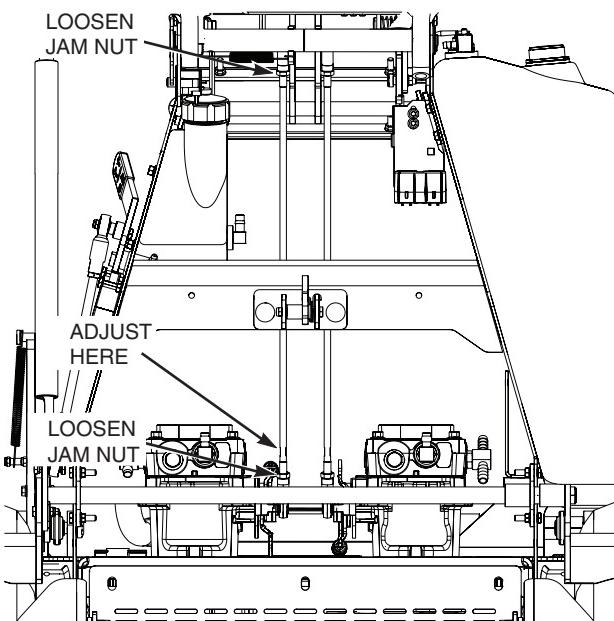


Figure 6-3. Tracking Adjustment Left Side

6. Actuate the steering control levers forward and reverse several times and return them to the neutral position.
7. Check that the drive wheels remained in neutral and readjust if necessary.
8. Check that the steering control levers hit the stop before the pumps reach full stroke. Adjust as needed.

TRACKING ADJUSTMENT

CAUTION

Stop the engine and remove the key from the ignition before making any adjustments. Wait for all moving parts to come to a complete stop before beginning work.

CAUTION

The engine and drive unit can get hot during operation causing burn injuries. Allow the engine and drive components to cool before making any adjustments.

Section 6

-NOTE-

Before proceeding with this adjustment, be sure that the caster wheels turn freely and that the tire pressure in the drive wheels is correct. If the tire pressure is not correct, the machine will pull to the side with the lower pressure.

1. If at full speed the mower pulls right, it is an indication that the left wheel is turning faster than the right wheel. To adjust this condition, proceed as follows:

A. Stop the machine and place the steering control levers in the neutral position. Loosen the lock nuts securing the ball joints at each end of the LH steering control rod. Rotate the control rod to lengthen the rod and tighten the lock nuts. This will cause the control rod to stroke the LH pump less, slowing down the LH wheel. See Figure 6-3.

- NOTE -

If after making the adjustment as outlined in step 1A, the machine creeps forward or backward, the neutral adjustment must be made as described on page 20.

2. If at full speed the mower pulls left, it is an indication that the right wheel is turning faster than the left wheel. To adjust this condition, proceed as follows:

A. Stop the machine and place the steering control levers in the neutral position. Loosen the lock nuts securing the ball joints at each end of the RH steering control rod. Rotate the control rod to lengthen the rod and tighten the lock nuts. This will cause the control rod to stroke the RH pump less, slowing down the RH wheel. See Figure 6-2.

- NOTE -

If after making the adjustment as outlined in step 2A, the machine creeps forward or backward, the neutral adjustment must be made as described on page 20.

6.3 THROTTLE CONTROL AND CHOKE ADJUSTMENTS

These adjustments must be performed by your Scag dealer to ensure proper and efficient running of the engine. Should either need adjustment, contact your authorized Scag service center.

6.4 BELT ADJUSTMENTS

WARNING

Before removing any guards, shut the engine off and remove the ignition key. Wait for all moving parts to come to a complete stop before beginning work.

All drive belts and cutter deck belts are spring loaded and self-tensioning. The belts should be checked periodically for proper alignment and wear.

WARNING

If the pump drive belt fails, steering control will be lost which could result in serious injury or death. Replace the pump drive belt as needed or every 400 hours / 2 years, whichever occurs first.

6.5 BELT ALIGNMENT

Belt alignment is important for proper performance of your Scag mower. If you experience frequent belt wear or breakage, see your authorized Scag service center for belt adjustment.

6.6 CUTTER DECK ADJUSTMENTS

Cutter deck level, pitch and height are set at the factory. However, if these adjustments should ever need to be made, the following procedures will aid in obtaining the proper cutter deck adjustment.

- NOTE -

Before proceeding with the cutter deck adjustments, be sure all tires are properly inflated.

CUTTER DECK LEVEL

The cutter deck should be level from side-to-side for proper cutting performance. To check for level, be sure that the mower is on a flat, level surface, the tires are properly inflated and the cutter deck is set at the most common cutting height that you will use. On the LH side of the machine, check the distance from the top of the cutter deck to the floor. Next check the distance from the top of the cutter deck to the floor on the RH side of the machine. Both measurements should be the same. If the two measurements are different, the cutter deck level must be adjusted as follows:

1. On the front RH side of the cutter deck locate the cutter deck adjustment levers. Loosen the elastic stop nuts securing the cutter deck adjustment levers on the front and rear of the cutter deck. See Figure 6-4.

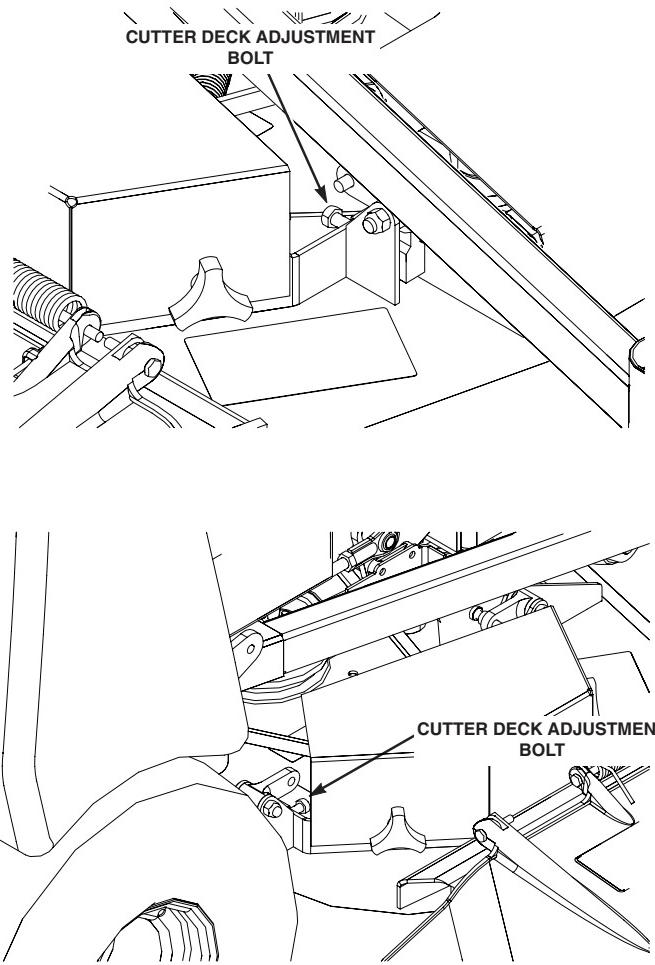


Figure 6-4. Cutter Deck Level Adjustment

2. Turn the adjustment bolts on the front and rear cutter deck adjustment levers clockwise to raise or counter-clockwise to lower the RH side until the distance from the top of the cutter deck to the floor is the same as the measurement on the LH side of the machine.
3. Tighten the two elastic stop nuts to secure the cutter deck in the proper position.

CUTTER DECK PITCH

The pitch of the cutter deck should be equal between the front and rear of the cutter deck for proper cutting performance. To check for proper deck pitch, be sure that the mower is on a flat, level surface and the tires are properly inflated.

Check the distance from the top of the cutter deck to the floor at the rear RH side of the cutter deck. Next check the distance from the top of the cutter deck to the floor at the front RH side of the cutter deck. The measurement at the front of the cutter deck should be the same as the rear of the deck. Make these measurements at the LH side of the cutter deck also. If the measurement at the front of the deck is not the same, the cutter deck pitch must be adjusted as follows:

1. Loosen the elastic stop nuts securing the deck level links on the front of the cutter deck on both sides. See Figure 6-5.
2. Turn the adjustment bolts on both sides either clockwise to raise or counterclockwise to lower the front of the cutter deck until the measurements are equal. Tighten the elastic stop nuts.

Section 6

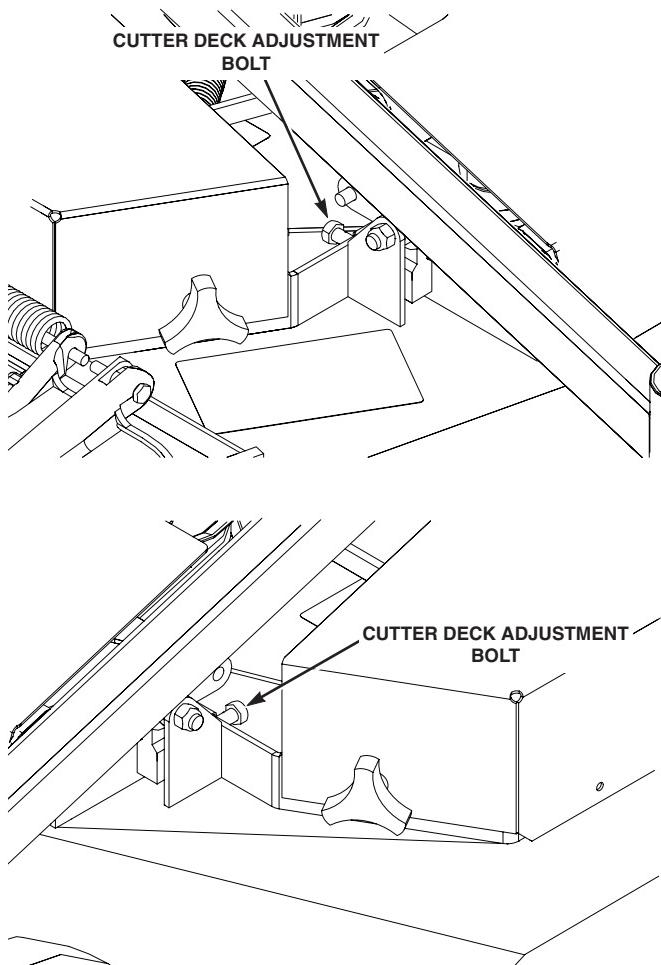


Figure 6-5. Cutter Deck Pitch Adjustment

CUTTER DECK HEIGHT

The cutter deck height adjustment is made to ensure that the cutter deck is cutting at the height indicated on the cutting height index gauge. To check for proper deck height, be sure that the mower is on a flat, level surface, shut off the engine and remove the ignition key. Make sure the tires are properly inflated.

1. Check the cutter deck cutting height by placing the lanyard pin in the 3" position on the cutting height index. Release the deck from the transport position and allow the deck to move to the 3" cutting height position.

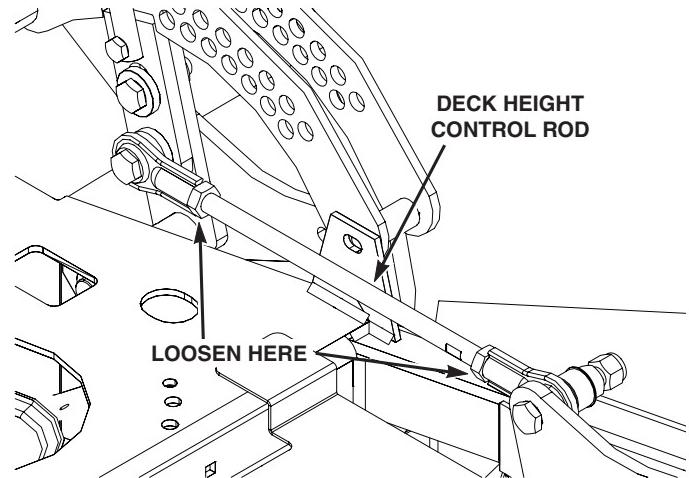


Figure 6-6. Cutter Deck Height Adjustment

2. Rotate the cutter blade on the left side of the cutter deck. Position the cutter blade so it is facing "front to back" on the machine.

WARNING

Always wear proper hand and eye protection when working with cutter blades.

3. Check the measurement from the floor to the cutter blade tip at the rear of the left side blade. If the measurement is not at 3", an adjustment can be made using the deck height control rod.
4. Adjust by loosening the jam nuts on the deck height control rod. Turn the deck height control rod until the 3" setting is achieved. Hold the deck height control rod and tighten the jam nuts. See Figure 6-6.
5. Once the adjustment is made to the deck height control rod, Check the measurement from the floor to the cutter blade tip at the front of the left side blade. If the measurement is not at 3", an adjustment must be made using the cutter deck adjustment lever. Adjust as follows:
 - A. Loosen the elastic stop nuts securing the deck level links on the front of the cutter deck on both sides (See Figure 6-4 and Figure 6-5 for Cutter Deck Adjustment Lever Location).
 - B. Turn the adjustment bolts on both side either clockwise to raise or counterclockwise to lower the front of the cutter deck until the measurements are equal. Tighten the elastic stop nuts.

6. Rotate the cutter blade on the right side of the cutter deck. Position the cutter blade so it is facing "front to back" on the machine.
7. Check the measurement from the floor to the cutter blade tip at the front and rear of the right side blade. If the measurement is not at 3", an adjustment must be made using the cutter deck adjustment lever. Adjust as follows:

A. Loosen the elastic stop nuts securing the deck level links on the front of the cutter deck on both sides (See Figure 6-4 and Figure 6-5 for Cutter Deck Adjustment Lever Location).

B. Turn the adjustment bolts on both side either clockwise to raise or counterclockwise to lower the cutter deck until the measurements are equal. Tighten the elastic stop nuts.

To adjust the Custom-Cut Baffle height:

1. Park the machine on a flat surface, apply the parking brake, shut off the engine and remove the key.
2. Place the cutter deck in the transport position.
3. Remove the hardware securing the Custom-Cut Baffle to the cutter deck.

- NOTE -

Hardware location used in the illustrations are for reference only. Location of hardware may vary depending on cutter deck size.

4. Move the Custom-Cut Baffle to desired position. See Figures 6-7.
5. Reinstall the mounting hardware. Torque hardware to 39 ft-lbs.

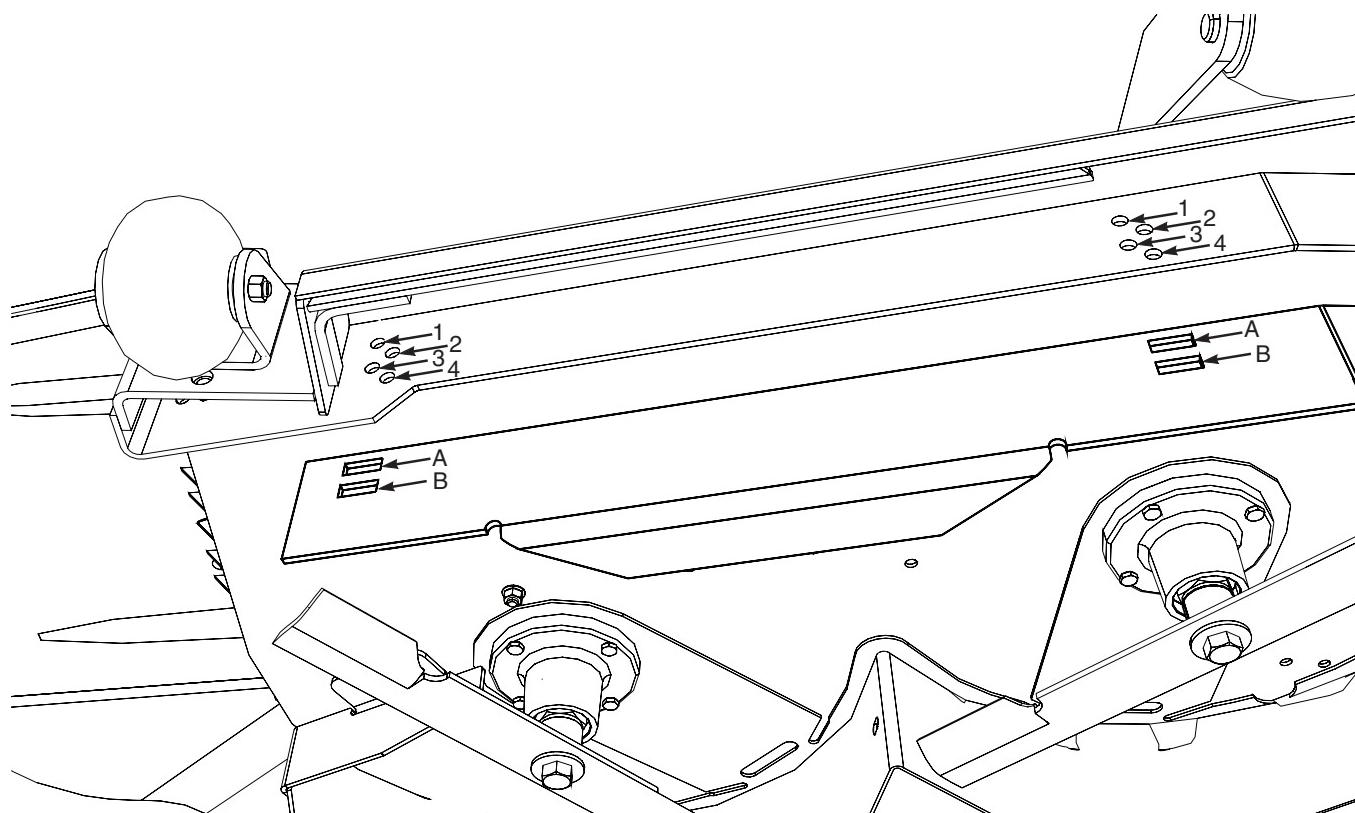
CUSTOM-CUT BAFFLE ADJUSTMENT

The Custom-Cut Baffle is designed to deliver optimum airflow and superior cutting performance in any type of grass. The Custom-Cut Baffle can be raised or lowered to precisely tailor the deck's performance for the type of grass being cut. The baffle can be set in seven (7) different positions for optimum performance.

A. 3-1/2" or 3-3/4" Position - See Figure 6-7. For very tall, wiry or tough-to-cut grass.

B. 4" (factory setting), 4-1/4" or 4-1/2" Position - See Figure 6-7. For general purpose cutting. This gives the best mix of cutting performance in all types of grass.

C. 4-3/4" or 5-1/4" Position - See Figure 6-7. Placing the baffle in either the 4-3/4" or 5-1/4" setting will enhance fall cutting (leaf pickup) and reduce cutter deck "blowout".

**Custom-Cut Baffle Adjustment****Mounting Slot Selected**

Slot "A"
Height (inches)

Hole 1
3-3/4"

Mounting Hardware Location

Hole 2
4-1/4"

Hole 3
4-3/4"

Hole 4
5-1/4"

Slot "B"
Height (inches)

Hole 2
3-1/2"

Hole 3
4"

Hole 4
4-1/2"

Figure 6-7. Custom-Cut Baffle Adjustment

6.7 ELECTRIC CLUTCH ADJUSTMENT

The electric clutch serves two functions in the operation of the mower. In addition to starting and stopping the power flow to the cutter blades, the clutch also acts as a brake to assist in stopping blade rotation when the PTO is switched off or the operator presence circuit is interrupted.

When the clutch is disengaged, the air gap between the armature and rotor must be adjusted to fifteen thousandths of an inch, 0.015, for proper operation. The airgap adjustment is made at three bolts on the clutch. There are three inspection windows, one next to each adjusting bolt. See Figure 6-8.

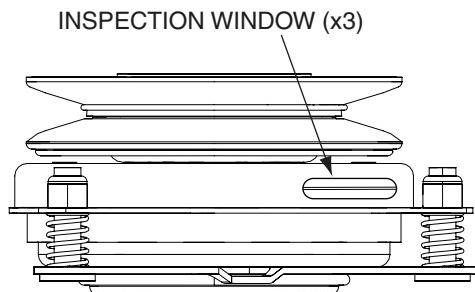


Figure 6-8. Clutch Air Gap Adjustment

1. Locate the inspection windows on the clutch.
2. Place a 0.015 feeler gauge in the slot between the rotor and the armature. See Figure 6-9.

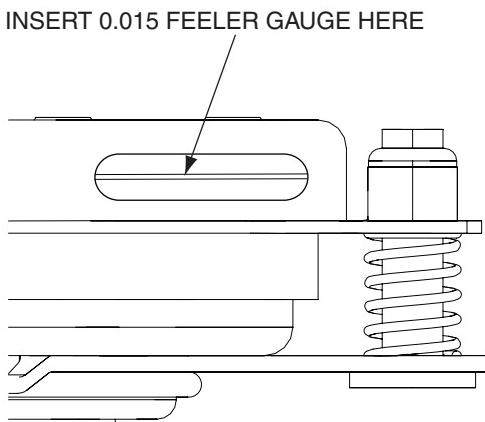


Figure 6-9. Clutch Air Gap Adjustment

3. Tighten or loosen the adjusting bolt as needed to achieve the 0.015 inch airgap. See Figure 6-10. Perform this operation at all three inspection windows.

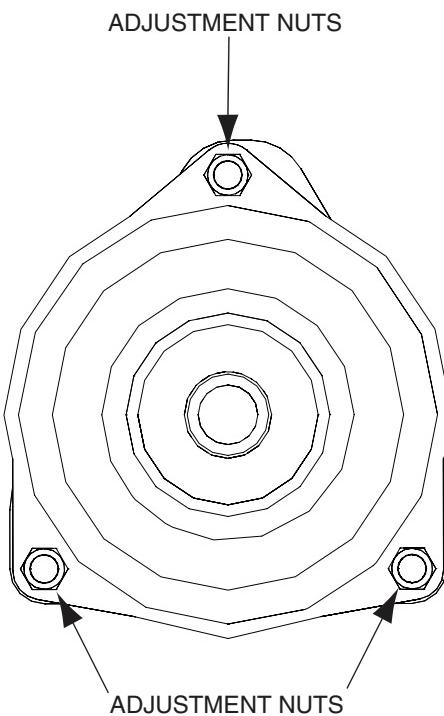


Figure 6-10. Clutch Air Gap Adjustment

This adjustment should be done every 500 hours of operation or annually, whichever comes first. In cases where the machine is heavily used, airgap settings should be checked more often.

If the air gap is too narrow, the clutch armature may drag when disengaged, resulting in premature failure.

If the air gap is too wide, the clutch may be slow to engage as the magnet must pull the armature in from a greater distance.

6.8 FRONT WEIGHT ADJUSTMENT

This mower has been designed for good traction and stability under normal mowing conditions. However, caution must be used when traveling on slopes, especially when the grass is wet. Wet grass reduces traction and steering control.

The 36" model comes standard with two (2) weights installed and the 48", 52" and 61" models come standard with one (1) weight installed. All models must not be operated with less than the number of weights listed above.

Section 6

Additional weight can be added to the front of the machine if needed. See Figure 6-11.

1. Remove the front belt cover from the machine.
2. Remove the mounting hardware securing the weight(s) to the front of the machine.
3. Add the desired weight to the machine and secure using the recommended hardware. See Figure 6-11.
4. Reinstall the front belt cover.

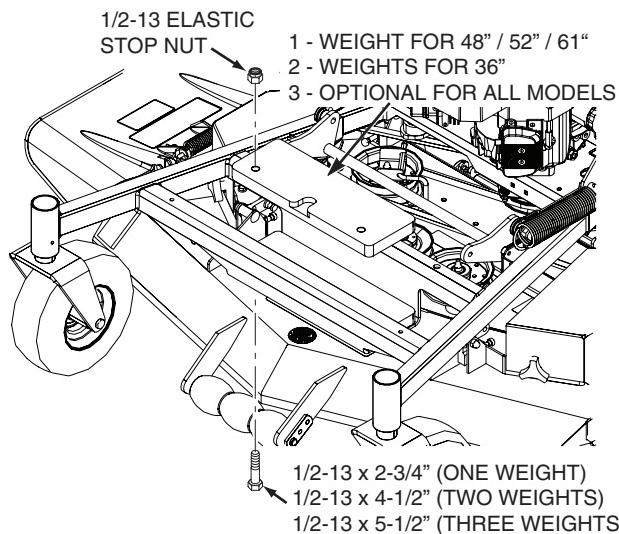


Figure 6-11. Front Weight Adjustment

6.9 OPERATOR CUSHION ADJUSTMENT

The operator cushion can be mounted in three (3) different positions to fit a wide range of operators. See Figure 6-12.

1. Remove the hardware securing the operator cushion to the mounting bracket.
2. Install and secure the operator cushion in the A, B or C location for the desired position for comfort. See Figure 6-12.

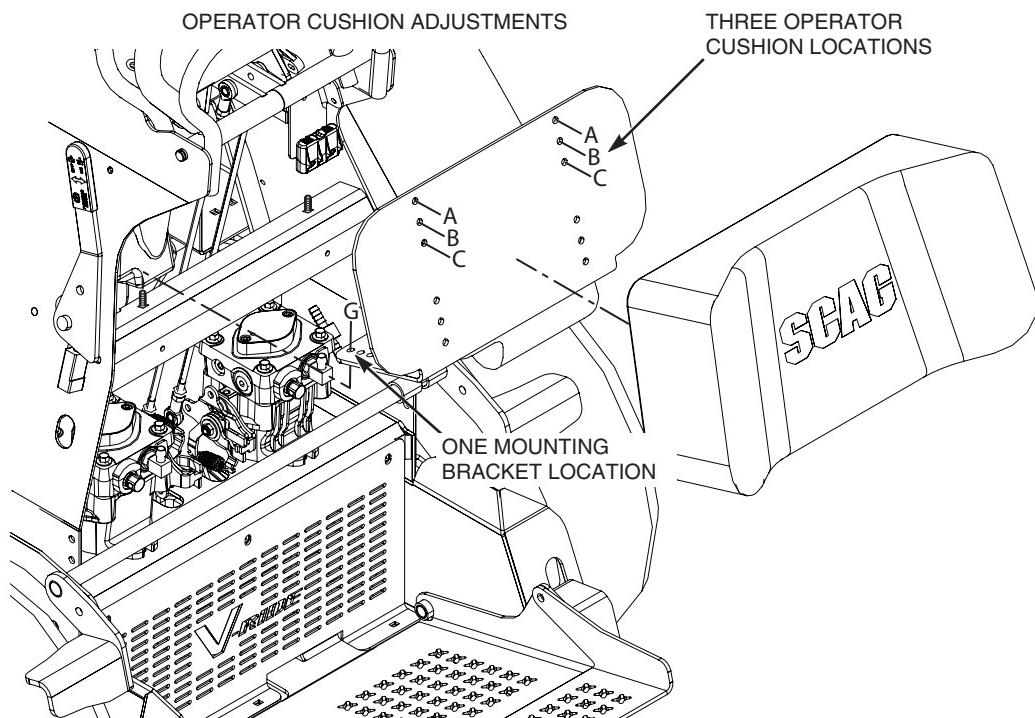


Figure 6-12. Operator Cushion Adjustment

MAINTENANCE

7.1 MAINTENANCE CHART - RECOMMENDED SERVICE INTERVALS

BREAK-IN (FIRST 10)	HOURS						PROCEDURE	COMMENTS
	8	20	40	100	200	500		
X							Check all hardware for tightness	
X							Check hydraulic oil level	See paragraph 7.3
X							Check belts for proper alignment	See paragraph 6.5
	X						Check hydraulic hoses for leaks	Use extreme caution when checking the hydraulic hoses. See paragraph 2.5
	X						Check engine oil level	See paragraph 7.4
	X						*Clean mower	
	X						Check tire pressure	See paragraph 7.9
	X						*Clean air filter element	See paragraph 7.6
	X						Check condition of blades	See paragraph 7.8
	X						Apply grease to fittings	See paragraph 7.2
	X						Check safety interlock system	See paragraph 4.2
		X					Change engine oil and filter	See paragraph 7.4
		X					Check belts for proper alignment	See paragraph 6.5
		X					Inspect pump drive belt. Replace every 400 hours or 2 years, whichever comes first.	See paragraph 6.4 & 7.8
			X				Check belts for proper alignment	See paragraph 6.5
			X				Check condition of fuel lines	
			X				*Clean engine air filter	See engine operator's manual
			X				Apply grease to fittings	See paragraph 7.2
			X				Check all hardware for tightness	
			X				Change engine oil	See paragraph 7.4
			X				*Clean air cleaner element	See paragraph 7.6

* Perform these maintenance procedures more frequently under extreme dusty or dirty conditions

MAINTENANCE CHART - RECOMMENDED SERVICE INTERVALS (CONT'D)

BREAK-IN (FIRST 10)	HOURS					PROCEDURE	COMMENTS
	8	40	100	200	500		
			X			Check hardware for tightness	
			X			Apply grease to fittings	See paragraph 7.2
			X			Check hydraulic oil level	See paragraph 7.3
			X			Change engine oil	See paragraph 7.4
			X			Change engine oil filter	See paragraph 7.4
				X		Replace engine fuel filter	See paragraph 7.5
				X		Apply grease to fittings	See paragraph 7.2
				X		Drain hydraulic system and replace oil and filter	See paragraph 7.3
				X		Adjust electric PTO clutch	See paragraph 6.6

7.2 LUBRICATION**GREASE FITTING LUBRICATION CHART**

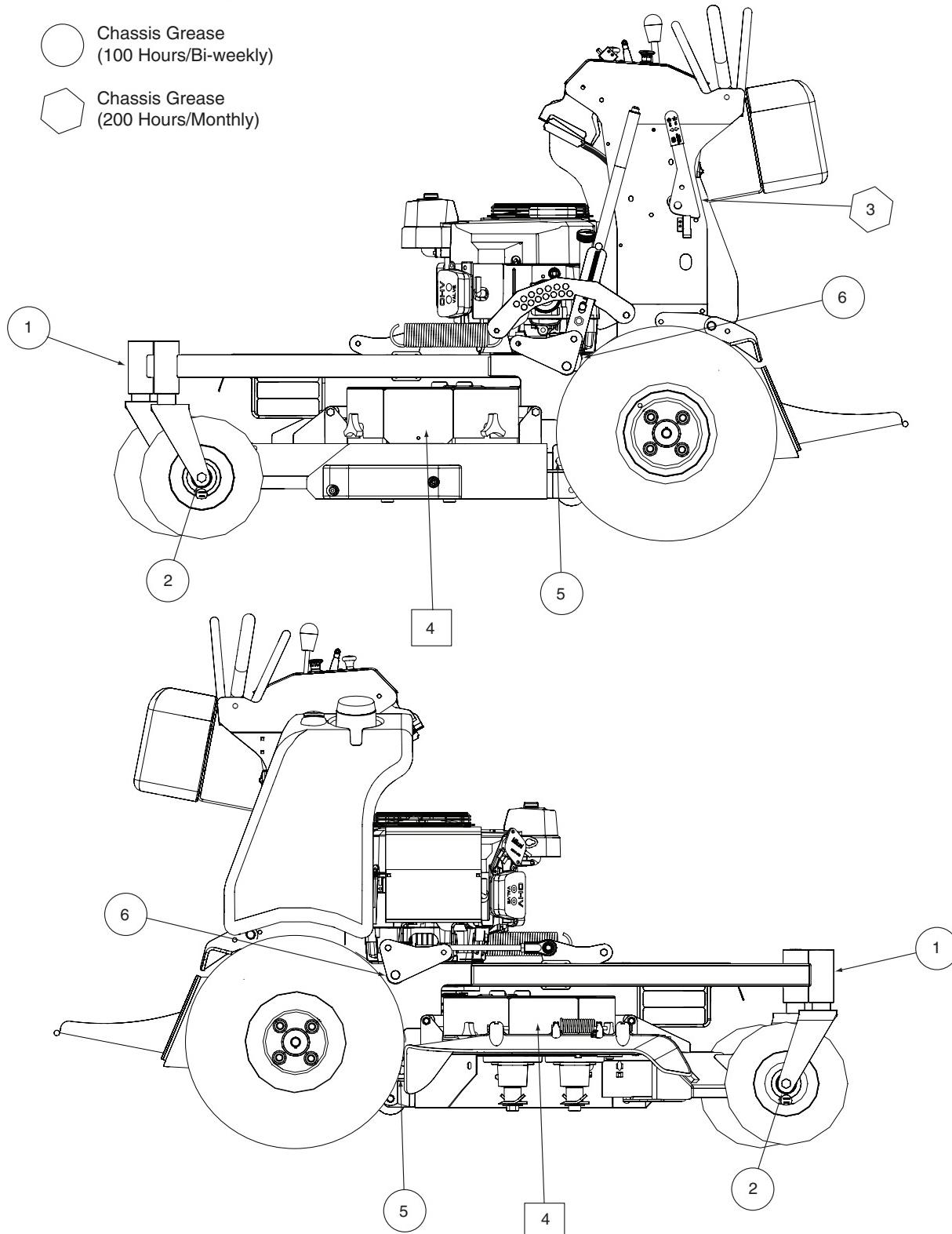
LOCATION	LUBRICATION INTERVAL	LUBRICANT	NO. OF PLACES
1 - Caster Wheel Pivot	100 Hours / Bi-Weekly	Chassis Grease	2
2 - Caster Wheel Bearings	100 Hours / Monthly	Chassis Grease	2
3 - Brake Actuator Lever	200 Hours / Bi-Weekly	Chassis Grease	1
4 - Cutter Deck Spindles	40 Hours / Weekly	+ US Lithium MP White Grease	2 / 3
5 - Cutter Deck Pusharms	100 Hours / Monthly	Chassis Grease	2
6 - Cutter Deck Bellcranks	100 Hours / Monthly	Chassis Grease	2

Section 7**GREASE FITTING LUBRICATION**
Lubricant Interval

Lithium MP White Grease 2125
(40 Hours/Weekly)

Chassis Grease
(100 Hours/Bi-weekly)

Chassis Grease
(200 Hours/Monthly)

**Figure 7-1. Lubrication Fitting Points**

7.3 HYDRAULIC SYSTEM

A. CHECKING HYDRAULIC OIL LEVEL

The hydraulic oil level should be checked after the first 8 hours of operation. Thereafter, check the oil after every 200 hours of machine operation or monthly, whichever occurs first.

- IMPORTANT -

If the oil level is consistently low, check for leaks and correct immediately.

1. Wipe dirt and contaminants from around the reservoir cap. Remove the cap from the hydraulic oil reservoir.
2. Visually check the level of hydraulic oil. Hydraulic oil must be at least 2-1/4" inches from top of the filler neck. If the level cannot be determined visually, use a clean tape measure to check the level. If the fluid is low, add 20W50 motor oil. DO NOT overfill; (overfilling the oil reservoir may cause oil seepage around the cap area).
3. Clean the fill cap and install it onto the reservoir.

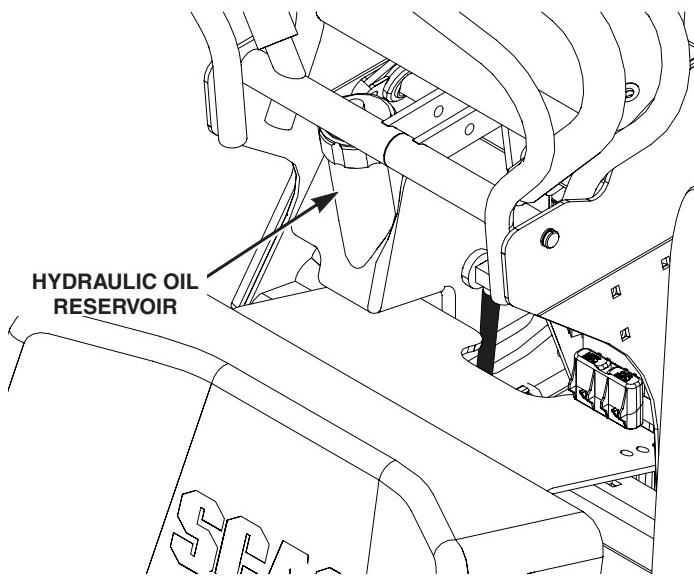


Figure 7-2. Hydraulic Oil Reservoir

B. CHANGING HYDRAULIC OIL

The hydraulic oil should be changed after every 500 hours or annually, whichever occurs first. The oil should also be changed if the color of the fluid has become black or milky. A black color and/or a rancid odor usually indicates possible overheating of the oil, and a milky color usually indicates water in the hydraulic oil.

- IMPORTANT -

The hydraulic oil should be changed if you notice the presence of water or a rancid odor to the hydraulic oil.

1. Park the mower on a level surface, stop the engine and remove the ignition key.
2. Place a suitable container under the hydraulic oil filter. Remove the fill cap from the reservoir. Remove the drain plug from the fitting on the filter base. See Figure 7-3. Allow the fluid to drain into the container and properly discard it.
3. Re-install the drain plug into the tee fitting and be sure it is tight.

- NOTE -

Before refilling the hydraulic oil reservoir the hydraulic oil filter should be changed as outlined in Procedure C "Changing Hydraulic Oil Filter Element".

4. Fill the reservoir to full 2-1/4" inches below the filler neck with 20W50 motor oil.
5. Replace the reservoir fill cap. Start the engine and drive forward and backward for two minutes. Check the oil level in the reservoir. If necessary, add oil to the reservoir.

Section 7

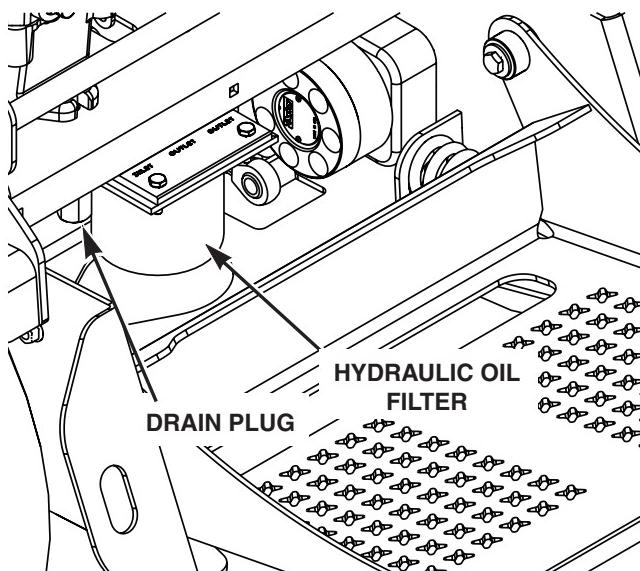


Figure 7-3. Hydraulic Oil Filter

C. CHANGING HYDRAULIC OIL FILTER ELEMENT

The hydraulic oil filter should be changed after every 500 hours of operation or annually, whichever occurs first.

1. Remove the oil filter element. See Figure 7-3. Properly discard the oil filter element. Fill the new filter with clean oil and install the filter. Hand tighten only.
2. Run the engine at idle speed with the speed control lever in neutral for five minutes.
3. Check the oil level in the hydraulic tank. Hydraulic oil must be at least 2-1/4" inches from top of the filler neck. If the level cannot be determined visually, use a clean tape measure to check the level. If the fluid is low, add 20W50 motor oil.

7.4 ENGINE OIL

A. CHECKING ENGINE CRANKCASE OIL LEVEL

The engine oil level should be checked after every 8 hours of operation or daily as instructed in the Engine Operator's Manual furnished with this mower.

B. CHANGING ENGINE CRANKCASE OIL

After the first 20 hours of operation, change the engine crankcase oil and replace the oil filter. Thereafter, change the engine crankcase oil after every 100 hours of operation or monthly, whichever occurs first. Refer to the Engine Operator's Manual furnished with this mower for instructions.

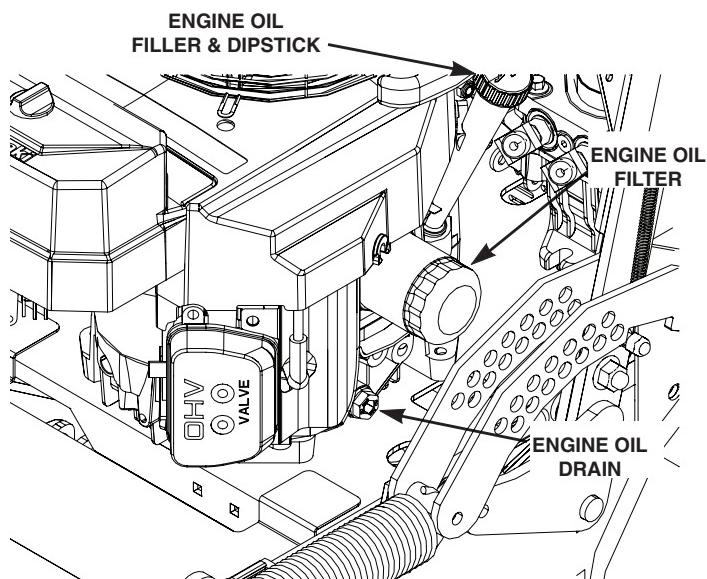


Figure 7-4. Drain Plug, Dipstick and Oil Filter Location

C. CHANGING ENGINE OIL FILTER

After the first 20 hours of operation, replace the engine oil filter. Thereafter, replace the oil filter after every 200 hours of operation or every month, whichever occurs first. Refer to Engine Operator's Manual for instructions.



DANGER

To avoid injury from burns, allow the mower to cool before changing the oil and removing the filter.

7.5 ENGINE FUEL SYSTEM

DANGER

To avoid injury from burns, allow the mower to cool before removing the fuel tank cap and refueling.

A. FILLING THE FUEL TANK

Fill the fuel tank to the bottom of the filler neck insert (approximately 5 gallons for the SVR36 / SVR48 or 8 gallons for the SVR52 / SVR61 indicating Full (F) on the fuel gauge) at the beginning of each operating day. See Figure 7-5. Do not overfill. Use clean, fresh unleaded gasoline with a minimum octane rating of 87 and a maximum of 10% Ethanol.

DO NOT use E85 Fuel. Using E85 Fuel will cause severe damage to the engine.

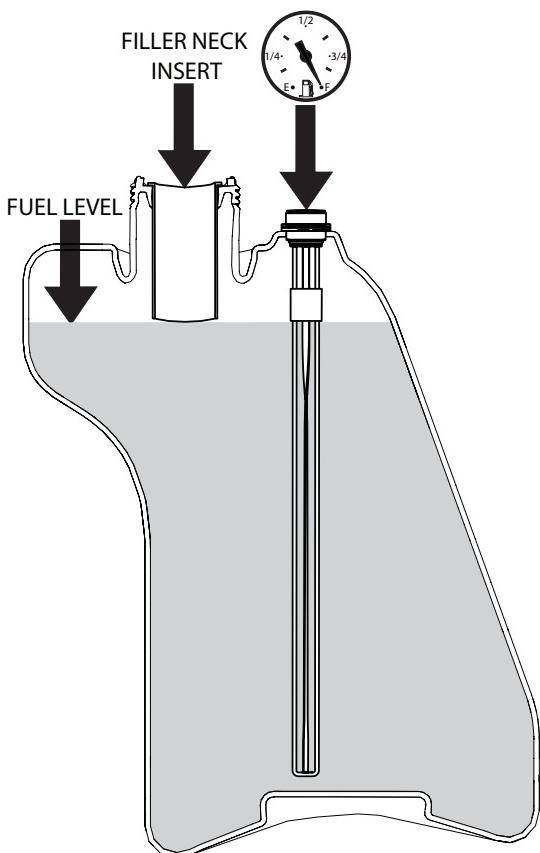


Figure 7-5. C.A.R.B. / EPA Phase 3 Fuel Level

To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

1. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
2. Use only an approved gasoline container.
3. Never remove the gas cap or add fuel with the engine running. Allow the engine to completely cool before fueling.
4. Never fuel the machine indoors or in an enclosed trailer.
5. Never store the machine or fuel container where there is an open flame, spark or pilot light such as on a water heater or other appliances.
6. Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
7. Remove the machine from the truck or trailer and fuel on the ground. If this is not possible, then refuel the machine with a portable container, rather than from a gasoline dispenser nozzle.
8. Keep the nozzle in contact with the rim of fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
9. If fuel is spilled on clothing, change clothing immediately and wash affected skin.
10. Replace gas cap and tighten securely. For Low Emission (LE) and EPA Phase 3 (produced after 1/1/2011) models, tighten the fuel cap until it ratchets.

B. REPLACING IN-LINE FUEL FILTER ELEMENTS

The engine fuel filter should be replaced after every 500 hours of operation or annually, whichever occurs first. See Figure 7-6.

1. Close the shutoff valve. Remove the two clamps securing the fuel filter to the fuel hose. Remove the fuel filter.
2. Install a new fuel filter. Be sure it is installed in the proper direction. Secure to the fuel hose using the two clamps.

Section 7

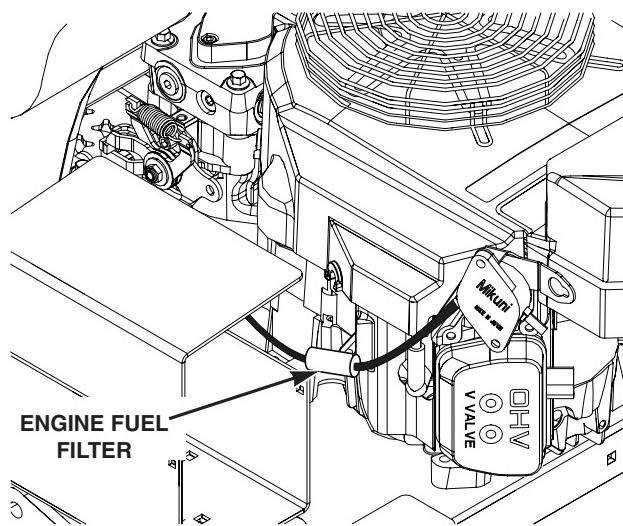


Figure 7-6. Fuel Filter

7.6 ENGINE AIR CLEANER

A. CLEANING AND/OR REPLACING AIR CLEANER ELEMENT

For any air cleaner, the operating environment dictates the air cleaner service periods. Inspect and clean the air cleaner element after every 100 hours of operation or monthly, whichever occurs first and replace the element if required. See Engine Owner's Manual for service information.

- NOTE -

In extremely dusty conditions it may be necessary to check the element once or twice daily to prevent engine damage.

1. Snap open the two clips securing the air cleaner cover to the air cleaner box. Remove the air cleaner cover, clean the duck bill vent of any dust or debris and set the cover aside.
2. Remove the air cleaner and inspect.
3. Clean or replace the air cleaner as recommended by the engine manufacturer. Replace the air cleaner cover and secure.
4. Replace the air filter cover and be sure to snap the two clips closed.

7.7 BATTERY - ELECTRIC START MODELS

WARNING

Lead-acid batteries produce flammable and explosive gases. To avoid personal injury when checking, testing or charging batteries, DO NOT use smoking materials near batteries. Keep arcs, sparks and flames away from batteries. Provide proper ventilation and wear safety glasses.

WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to cause cancer and reproductive harm. Wash hands after handling.

WARNING

Electric storage battery fluid contains sulfuric acid which is POISON and can cause SEVERE CHEMICAL BURNS. Avoid contact of fluid with eyes, skin, or clothing. Use proper protective gear when handling batteries. DO NOT tip any battery beyond 45° angle in any direction. If fluid contact does occur, follow first aid suggestions below.

BATTERY ELECTROLYTE FIRST AID

External Contact — Flush with water.

Eyes — Flush with water for at least 15 minutes and get medical attention immediately.

Internal — Drink large quantities of water. Follow with Milk Of Magnesia, beaten egg, or vegetable oil. Get medical attention immediately. In case of internal contact, DO NOT give fluids that would induce vomiting.

A. CHARGING THE BATTERY

Refer to the battery charger's manual for specific instructions.

Under normal conditions the engine's alternator will have no problem keeping a charge on the battery. If the battery has been completely discharged for a long period of time, the alternator may not be able to recharge the battery, and a battery charger will be required.

DO NOT charge a frozen battery. It may explode and cause injury. Let the battery warm before attaching a charger.

Whenever possible, remove the battery from the mower before charging and make sure the electrolyte covers the plates in all cells.

WARNING

BATTERIES PRODUCE EXPLOSIVE GASES.
Charge the battery in a well ventilated space so gases produced while charging can dissipate.

Charging rates between 3 and 50 amperes are satisfactory if excessive gassing or spewing of electrolyte does not occur or the battery does not feel excessively hot (over 125°F). If spewing or gassing occurs or the temperature exceeds 125°F, the charging rate must be reduced or temporarily stopped to permit cooling.

B. JUMP STARTING

1. The booster battery must be a 12 volt type. If a vehicle is used for jump starting, it must have a negative ground system.
2. When connecting the jumper cables, connect the positive cable to the positive battery post, then connect the negative cable to the negative battery post.

7.8 DRIVE BELTS

All drive belts are spring-loaded and self-tensioning, however after the first 2, 4, 8 and 10 hours of operation, the belts should be checked for proper alignment and wear. Thereafter, check the belts after every 40 hours of operation or weekly, whichever occurs first.

- NOTE -

If you experience frequent belt wear or breakage, see your authorized Scag service center for belt adjustment.

WARNING

If the pump drive belt fails, steering control will be lost which could result in serious injury or death. Replace the pump drive belt as needed or every 400 hours / 2 years, whichever occurs first.

7.9 CUTTER BLADES

A. BLADE INSPECTION

1. Remove the ignition key before servicing the blades.
2. Raise the mower deck to the highest position. Place the lanyard pin in the highest cutting height position to prevent the cutter deck from falling.

WARNING

Always wear proper hand and eye protection when working with cutter blades.

3. Check the cutter blades for straightness. If the cutter blades appear bent, they will need to be replaced.
4. Check the cutter blades for wear. If any part of the cutter blade is worn to 1/2 its original thickness, replace the cutter blade.

WARNING

Do not attempt to straighten a bent blade, and never weld a broken or cracked blade. Always replace it with a new blade to assure safety.

5. If a blade cutting edge is dull or nicked, it should be sharpened. Remove the blades for sharpening. See "Blade Replacement."

Section 7

- NOTE -

Keep the blades sharp. Cutting with dull blades not only yields a poor mowing job, but slows the cutting speed of the mower and causes extra wear on the engine and the blade drive by pulling hard.

B. BLADE SHARPENING

- NOTE -

If possible, use a file to sharpen the blade. Using a wheel grinder may burn the blade.

- NOTE -

DO NOT sharpen the blades beyond 1/3 of the width of the blade. See Figure 7-7.

1. Sharpen the cutting edge at the same bevel as the original. See Figure 7-7. Sharpen only the top of the cutting edge to maintain sharpness.

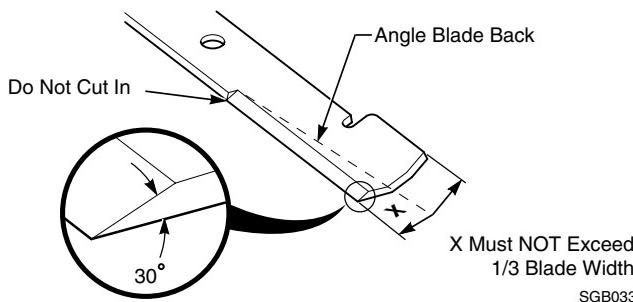


Figure 7-7. Blade Sharpening

2. Check the balance of the blade. If the blades are out of balance, vibration and premature wear can occur. The cutter blades should be balanced to 1-1/2 oz-in. See your authorized Scag dealer for blade balancing or special tools, if you choose to balance your own blades.

C. BLADE REPLACEMENT



WARNING

Always wear proper hand and eye protection when working with cutter blades.

2. Raise the mower deck to the highest position. Place the lanyard pin in the highest cutting height position to prevent the cutter deck from falling.
3. Secure the cutter blades to prevent them from rotating, (use the optional Blade Buddy tool, P/N 9212, to assist in securing the cutter blades), remove the nut from the blade attaching bolt. Remove the cutter blade, bolt and spacer from the spindle shaft. See Figure 7-8.

- NOTE -

The front of the machine will have to be raised slightly to remove the blade bolt from the cutter spindle.

CAUTION

Inspect the cutter blade spacer(s) and washer for wear and/or cupping. Replace the worn parts. Worn spacer(s) and/or washer will not allow proper tightening of the cutter blade and can lead to cutter blade failure, personal injury or property damage.

4. To install the new cutter blade, put the flat washer onto the blade bolt and slide the bolt into the hole in the cutter blade.

- NOTE -

Be sure that the blade is installed with the lift wing pointing toward the top of the deck.

5. Install the spacer onto the blade bolt and insert the bolt into the cutter spindle shaft.
6. Install the hex nut to the blade bolt at the top of the cutter spindle. Secure the blades from rotating and torque to 75 ft/lbs. See Figure 7-8.

1. Remove the ignition key before replacing the blades.

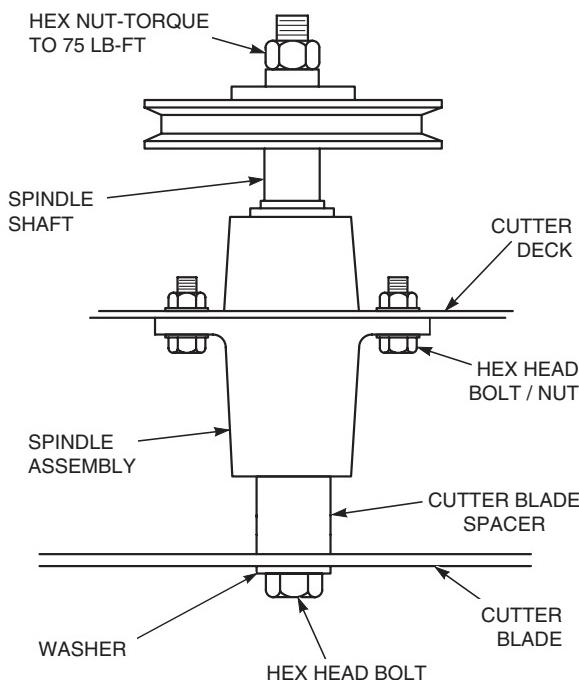


Figure 7-8. Blade Replacement

7.10 TIRES

Check the tire pressures after every 8 hours of operation or daily.

Caster Wheels Flat-Free
Drive Wheels 12 PSI

7.11 BODY AND DECK

CAUTION

Do not wash any portion of the equipment while it is hot. Do not wash the engine; use compressed air.

1. After each use, wash the mower and cutter deck. Use cold water and automotive cleaners. Do not use pressure cleaners.
2. Do not spray electrical components.
3. Repair damaged metal surfaces using Scag touch-up paint (P/N 48521) available from your authorized Scag dealer. Wax the mower with an automotive paint wax for maximum paint protection.

NOTES

ILLUSTRATED PARTS LIST

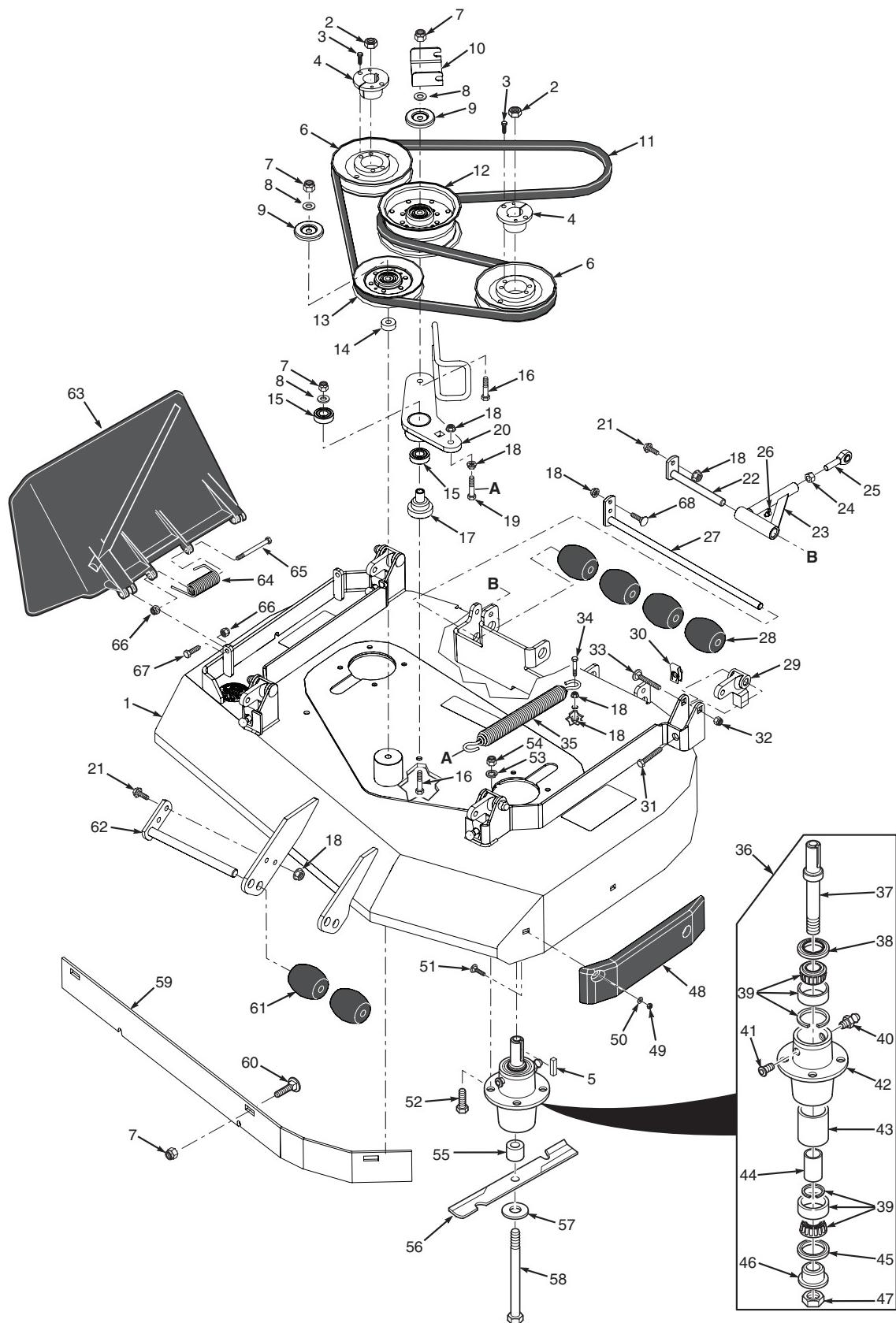
8.1 SCAG APPROVED ATTACHMENTS AND ACCESSORIES.

Attachments and accessories manufactured by companies other than Scag Power Equipment are not approved for use on this machine.

Scag approved attachments and accessories:

- Mulch Plate (p/n 9258, 9286, 9287, 9288)
- Hurricane Mulch (p/n 9263, 9283, 9284, 9285)
- GC-F4 (p/n 9075)
- Blade Buddy (p/n 9212)
- Chrome Wheel Covers (p/n 920H) - 48 / 52 / 61 Only
- Cup Holder (p/n 920W)

36A CUTTER DECK

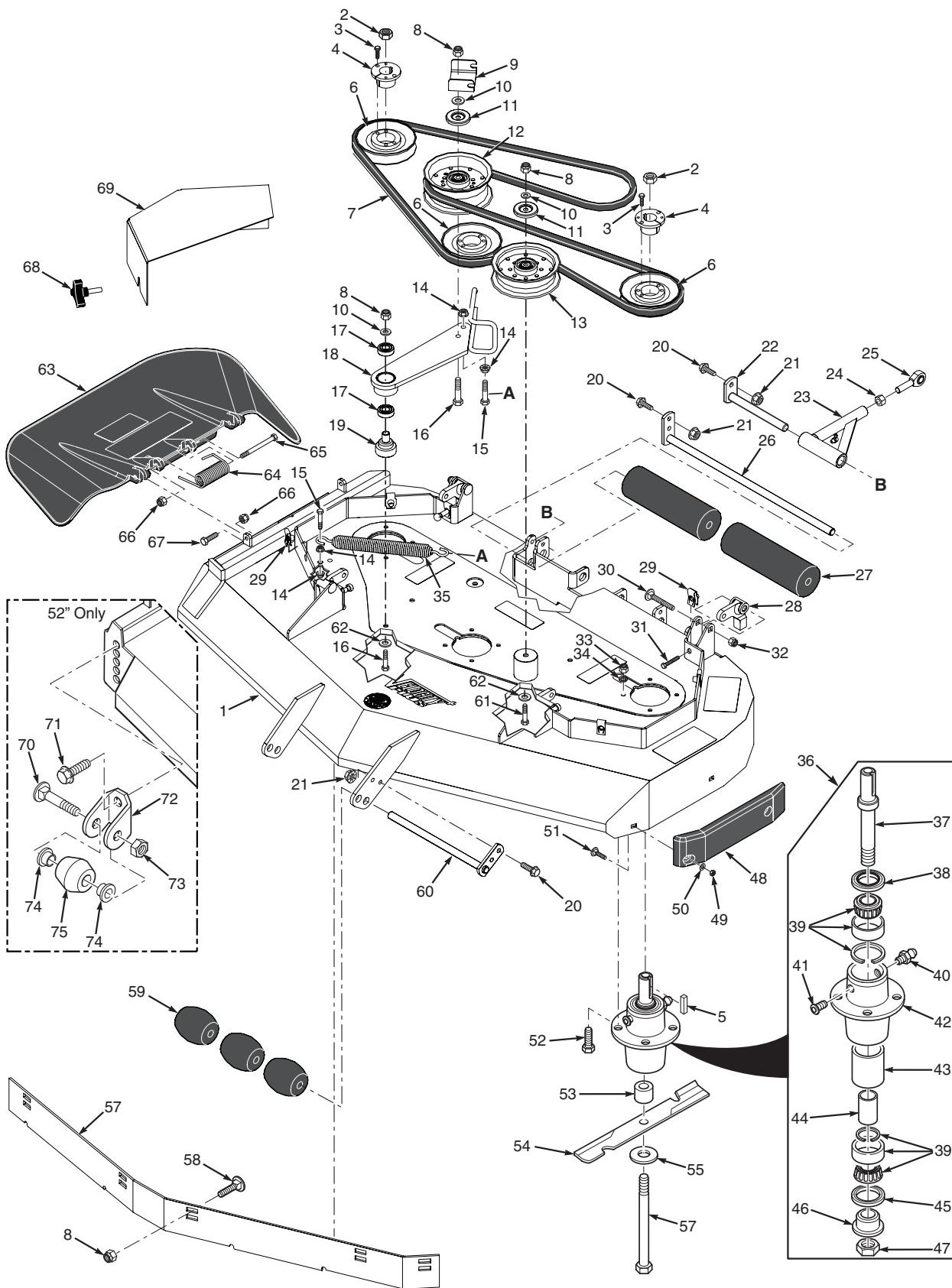


36A CUTTER DECK

Ref. No.	Part No.	Description
1	462361	Cutter Deck w/Decals - 36A
2	04020-09	Nut, 5/8-11 UNC
3	04001-172	Bolt, Hex Head 1/4-20 x 1"
4	48926	Tapered Hub, 1.125" Bore
5	04063-08	Key, 1/4 x 1/4 x 2"
6	483284	Pulley, 5.73 OD Tapered Bore
7	04021-09	Nut, Elastic Stop 3/8-16
8	04043-04	Flatwasher, 3/8-.391 x .938 x .105
9	424367	Dust Shield
10	424615	Bracket, Belt Guide
11	483969	Belt, Cutter Deck
12	483210	Pulley, 5" Idler
13	48181	Pulley, Idler
14	43077	Spacer
15	48224	Bearing
16	04001-62	Bolt, Hex Head 3/8-16 x 3-1/4"
17	43816	Pivot, Idler
18	04019-04	Nut, Serrated Flange 3/8-16
19	04001-136	Bolt, Hex Head 5/16-18 x 1-1/2" Gr.8
20	462233	Idler Arm Assy. (Incl. # 15)
21	04001-09	Bolt, Hex Head 5/16-18 x 1"
22	451724	Shaft Weldment, Pusharm Mount
23	461755	Pusharm Assy., LH
	461756	Pusharm Assy., RH
24	04020-08	Nut, 1/2-20 UNF
25	48542	Rod End, 1/2-20 RH
26	48114-08	Grease Fitting
27	452076	Shaft Weldment
28	482295	Wheel, Anti-Scalp
29	483361	Lever, Deck Level
30	04110-03	U-Nut, 3/8-16
31	04107-04	Bolt, Hex Head 3/8-16 x 2" Special
32	04021-11	Nut, Elastic Stop 7/16-14
33	04003-42	Bolt, Carriage 7/16-14 x 2-1/4"
34	04001-136	Bolt, Hex Head 3/8-16 x 1-1/2" Gr.8
35	484020	Spring
36	461663	Spindle Assembly
37	43589	Shaft, Spindle
38	481024	Seal, Upper
39	481022	Bearing Assembly
40	48114-04	Grease Fitting
41	48677	Valve, Grease Relief
42	43644	Housing, Spindle
43	43312	Spacer, Outside
44	43296	Spacer, Inside

Ref. No.	Part No.	Description
45	481025	Seal, Lower
46	43297	Bushing, Lower
47	481035	Nut, Special 1-1/16" - 18
48	483174	Pad, Deck Wear
49	04021-04	Nut, Center Lock 5/16-18
50	04040-04	Flatwasher, 5/16-.344 x .688 x .065
51	04003-12	Bolt, Carriage 5/16-18 x 1-3/4"
52	04001-176	Bolt, Hex Head 5/16-18 x 1-3/4"
53	04030-03	Lockwasher, 5/16" Spring
54	04021-22	Nut, Elastic Stop 5/16-18
55	43590	Spacer, Spindle Bottom
56	482878	Cutter Blade, 18"
57	04043-06	Flatwasher, 5/8-.688 x 1.75 x .134 HD
58	04001-41	Bolt, Hex Head 5/8-11 x 9-1/2"
59	423783	Baffle, Flange 36A
60	04003-23	Bolt, Carriage 3/8-16 x 1"
61	482295	Wheel, Anti-Scalp
62	451926	Shaft Weldment
63	461356	Discharge Chute Assembly
64	482245	Spring, Discharge Chute
65	04001-154	Bolt, Hex Head 5/16-18 x 4-3/4"
66	04021-10	Nut, Elastic Stop 5/16-18
67	04001-12	Bolt, Hex Head 5/16-18 x 1-3/4"
68	04003-04	Bolt, Carriage 5/16-18 x 1"

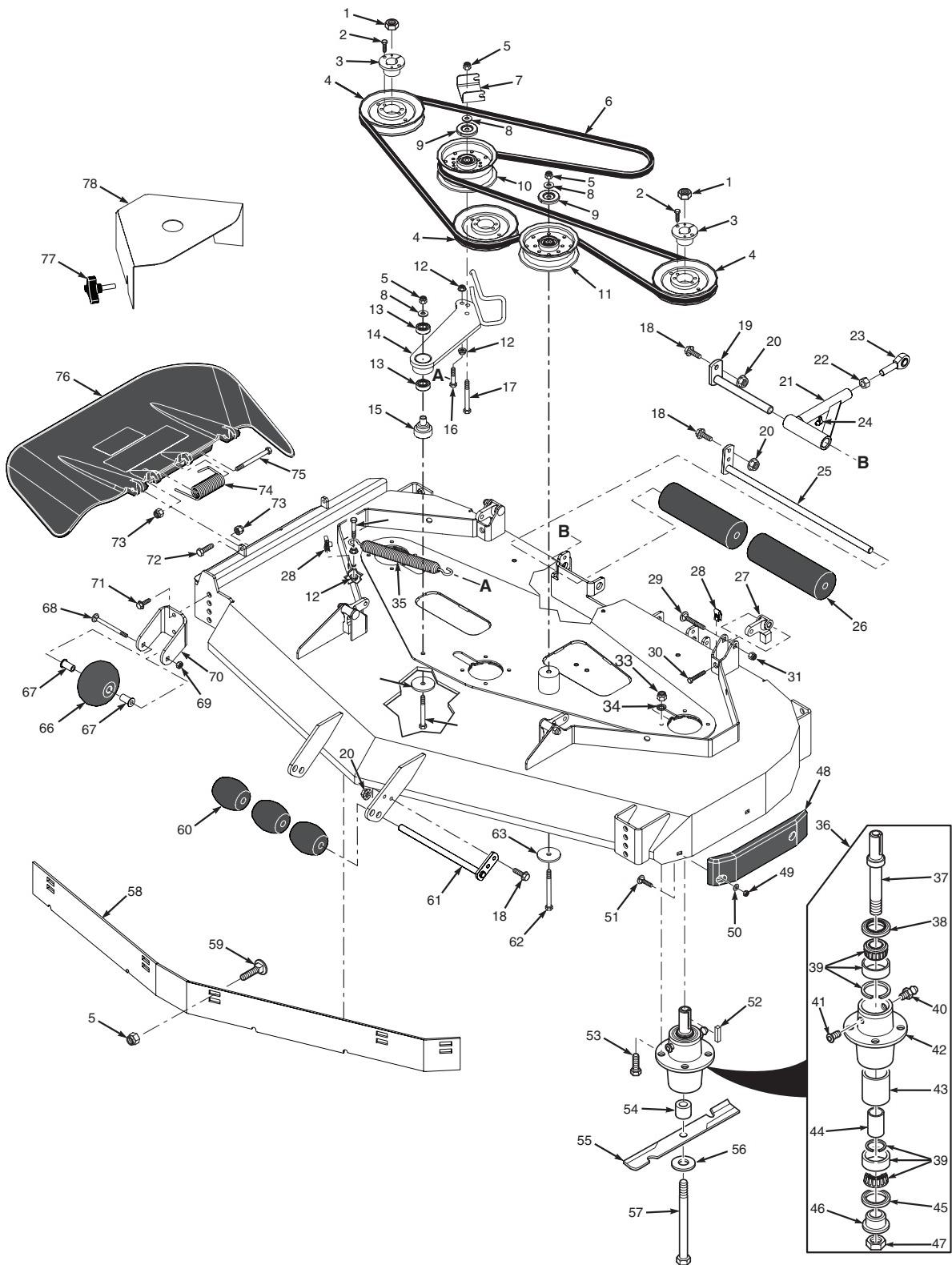
48V & 52V CUTTER DECKS



Section 8**48V & 52V CUTTER DECKS**

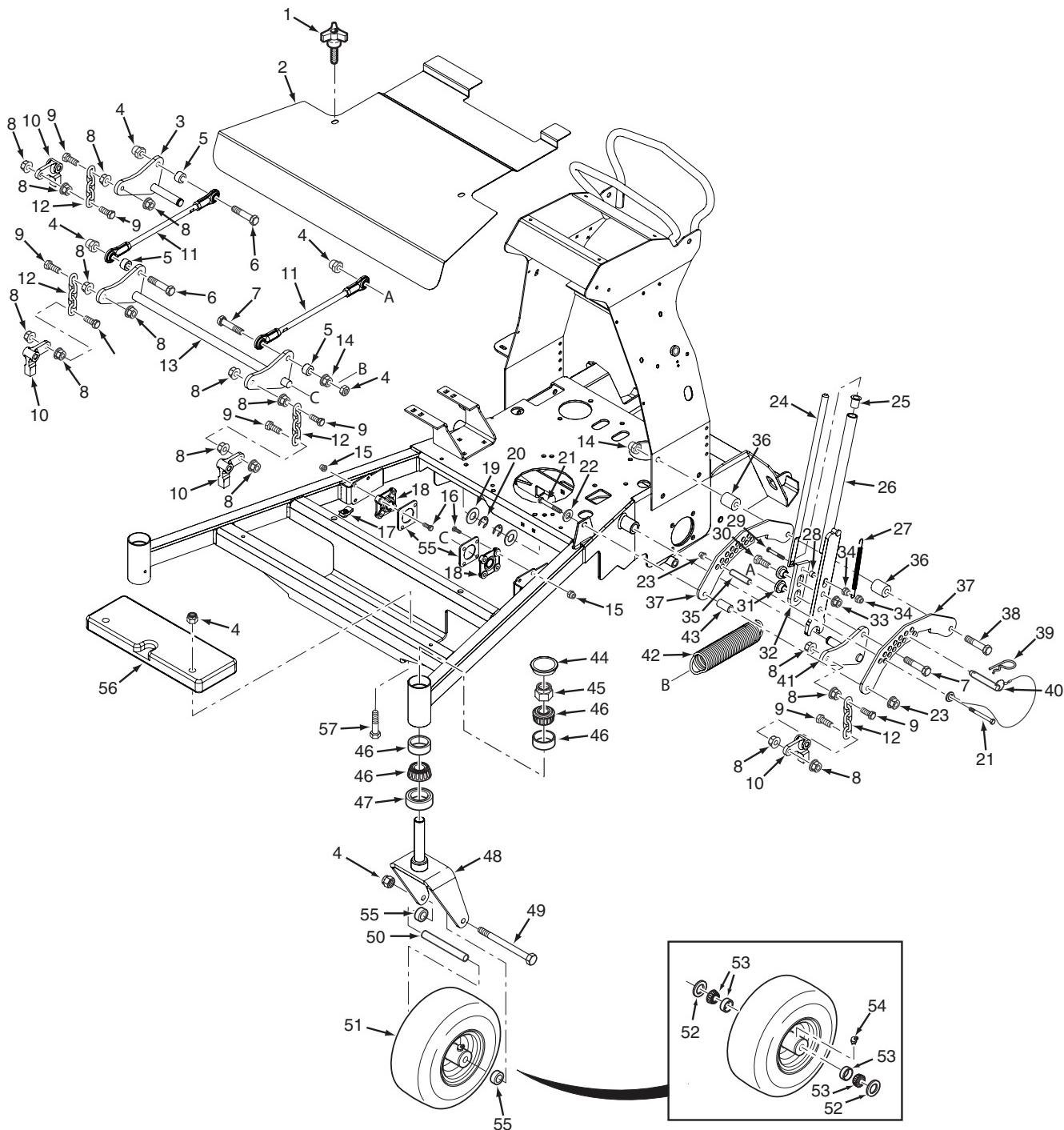
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	462237	Cutter Deck w/Decals (48V)	45	481025	Seal, Lower
	462362	Cutter Deck w/Decals (52V)	46	43297	Bushing, Lower
2	04020-09	Nut, 5/8-11 UNC	47	481035	Nut, Special 1-1/16" - 18
3	04001-172	Bolt, Hex Head 1/4-20 x 1"	48	483176	Pad, Deck Wear
4	48926	Tapered Hub	49	04021-04	Nut, Center Lock 5/16-18
5	04063-08	Key, 1/4 x 1/4 x 1"	50	04040-04	Flatwasher, 5/16-.344 x .688 x .065
6	483282	Pulley, 5.13 OD (48V)	51	04003-12	Bolt, Carriage 5/16-18 x 3/4"
	483284	Pulley, 5.73 OD (52V)	52	04001-176	Bolt, Hex Head 5/16-18 x 1-3/4"
7	483966	Belt, Cutter Deck (48V)	53	43590	Spacer, Spindle Bottom
	484100	Belt, Cutter Deck (52V)	54	482877	Cutter Blade, 16-1/2" (48V)
8	04021-09	Nut, Elastic Stop 3/8-16		482878	Cutter Blade, 18" (52V)
9	424615	Bracket, Belt Guide	55	04043-06	Flatwasher, 5/8-.688 x 1.75 x .134 HD
10	04043-04	Flatwasher, 3/8-.391 x .938 x .105 HD	56	04001-41	Bolt, Hex Head 5/8-11 x 9-1/2"
11	424367	Dust Shield	57	424839	Baffle, Flange 48V
12	483210	Pulley, 5" Idler		424840	Baffle, Flange 52V
13	483215	Pulley, 5" Idler	58	04003-23	Bolt, Carriage 3/8-16 x 1"
14	04019-04	Nut, Serrated Flange 3/8-16	59	482295	Wheel Anti-Scalp
15	04001-136	Bolt, Hex Head 3/8-16 x 1-1/2" Gr.8	60	45944	Shaft Weldment
16	04001-62	Bolt, Hex Head 3/8-16 x 3-1/4"	61	04001-47	Bolt, Carriage 3/8-16 x 5"
17	48224	Bearing	62	04041-38	Flatwasher, 3/8-.406 x 2.25 x .1875
18	462234	Idler Arm Assembly - 48V (Incl. # 17)	63	461844	Discharge Chute Assembly - 48V
	462235	Idler Arm Assembly - 52V (Incl. #17)		461845	Discharge Chute Assembly - 52V
19	43681	Pivot, Idler	64	482245	Spring, Discharge Chute
20	04001-09	Bolt, Hex Head 5/16-18 x 1"	65	04001-154	Bolt, Hex Head 5/16-18 x 4-3/4"
21	04019-03	Nut, Serrated Flange 5/16-18	66	04021-10	Nut, Elastic Stop 5/16-18
22	451724	Shaft Weldment, Pusharm Mount	67	04001-12	Bolt, Hex Head 5/16-18 x 1-3/4"
23	462323	Pusharm Assembly, LH	68	481625-01	Knob w/Stud
	462324	Pusharm Assembly, RH	69	425095	Belt Cover, RH (48V)
24	04020-16	Nut, 5/8-18 UNF		425364	Belt Cover, RH (52V)
25	48763	Rod End, Male 5/8"		425094	Belt Cover, LH (48V)
26	452076	Shaft Weldment		425363	Belt Cover, LH (52V)
27	483997	Guide Roller	70	04003-26	Bolt, Carriage 3/8-16 x 4"
28	483361	Lever, Deck Level	71	04017-27	Bolt, Hex Serr. Flange 3/8-16 x 1"
29	04110-03	U-Nut, 3/8-16	72	422478	Anti-Scalp Wheel Bracket
30	04003-42	Bolt, Carriage 7/16-14	73	04021-05	Nut, 3/8-16 Center Lock
31	04107-04	Bolt, Hex Head 3/8-16 x 2" Special	74	48100-15	Bushing, .376 I.D. Oilite
32	04021-11	Nut, Elastic Stop 7/16-14	75	481632	Anti-Scalp Wheel
33	04021-22	Nut, Elastic Stop 5/16-18			
34	04030-03	Lockwasher, 5/16" Spring			
35	484020	Spring, Cutter Deck			
36	461663	Spindle Assembly			
37	43589	Shaft, Spindle			
38	481024	Seal, Upper			
39	481022	Bearing Assembly			
40	48114-04	Grease Fitting			
41	48677	Valve Grease Relief			
42	43644	Housing, Spindle			
43	43312	Spacer, Outside			
44	43296	Spacer, Inside			

61V CUTTER DECK



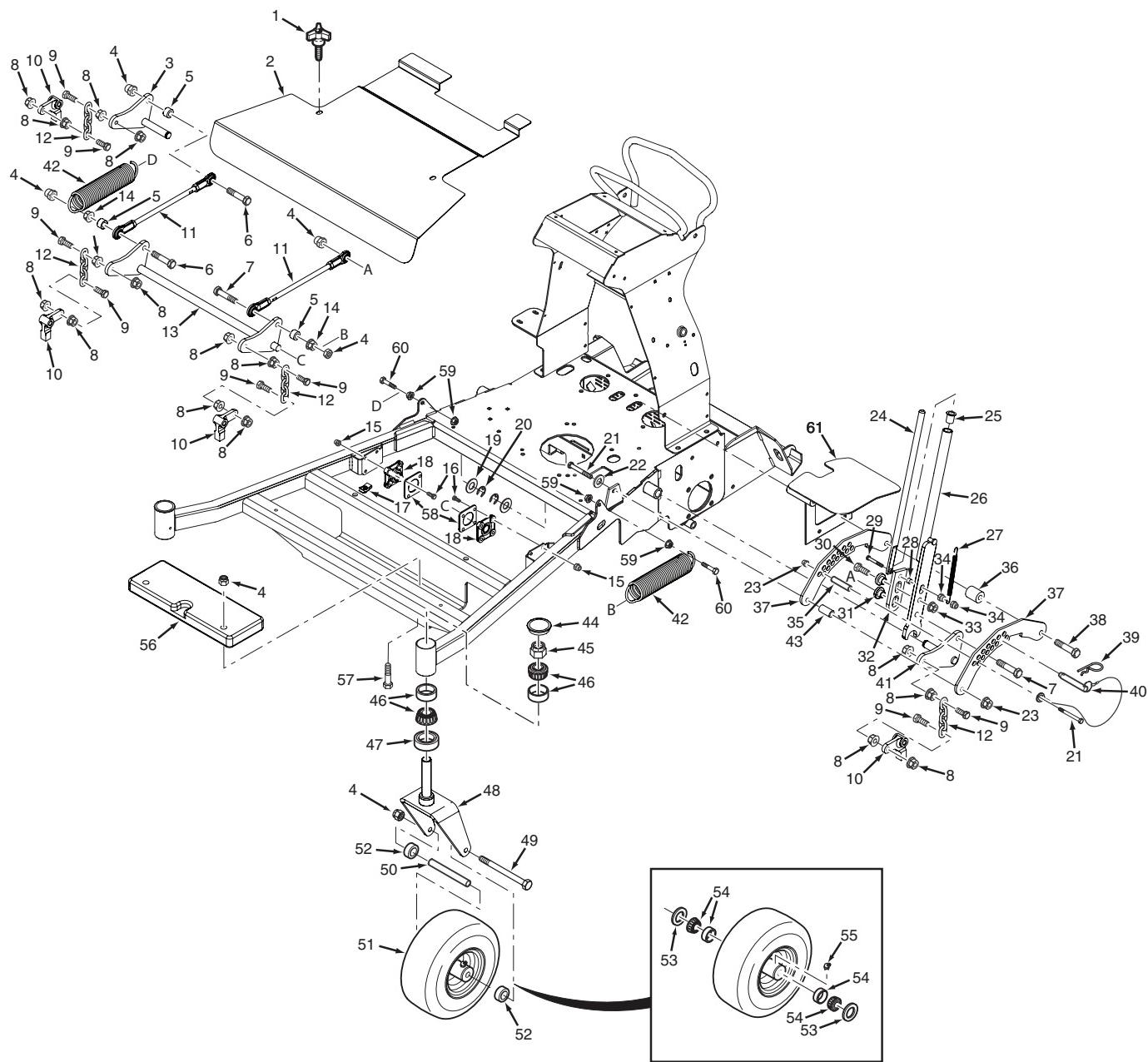
Section 8**61V CUTTER DECK**

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	04020-09	Nut, 5/8-11 UNC	45	481025	Seal, Lower
2	04001-172	Bolt, Hex Head 1/4-20 x 1"	46	43297	Bushing, Lower
3	48926	Tapered Hub	47	481035	Nut, Special 1-1/16" - 18
4	483286	Pulley, 6.32 O.D. (61V)	48	483176	Pad, Deck Wear
5	04021-09	Nut, 3/8-16 Elastic Stop	49	04021-04	Nut, Center Lock 5/16-18
6	484197	Belt, Cutter Deck (61V)	50	04040-04	Flatwasher, 5/16-.344 x .688 x .065
7	424615	Bracket, Belt Guide	51	04003-12	Bolt, Carriage 5/16-18 x 3/4"
8	04043-04	Flatwasher, 3/8-.391 x .938 x .105 HD	52	04063-08	Key, 1/4 x 1/4 x 1"
9	424367	Dust Shield	53	04001-176	Bolt, Hex Head 5/16-18 x 1-3/4"
10	483210	Pulley, 5" Idler	54	43590	Spacer, Spindle Bottom
11	483215	Pulley, 5" Idler	55	482881	Cutter Blade, 21"
12	04019-04	Nut, Serrated Flange 3/8-16	56	04043-06	Flatwasher, 5/8-.688 x 1.75 x .134 HD
13	48224	Bearing	57	04001-41	Bolt, Hex Head 5/8-11 x 9-1/2"
14	462333	Idler Arm Assembly (incl. # 13)	58	424841	Baffle, Flange 61V
15	43681	Pivot, Idler	59	04003-23	Bolt, Carriage 3/8-16 x 1"
16	04001-136	Bolt, Hex Head 3/8-16 x 1-1/2" Grade 8	60	482295	Wheel, Anti-Scalp
17	04001-62	Bolt, Hex Head 3/8-16 x 3-1/4"	61	45944	Shaft Weldment
18	04001-09	Bolt, Hex Head 5/16-18 x 1"	62	04001-47	Bolt, Hex Head 3/8-16 x 5"
19	451724	Shaft Weldment, Push Arm Mount	63	04041-38	Flatwasher, 3/8-.406 x 2.25 x .1875
20	04019-03	Nut, Serrated Flange 5/16-18	64	04001-62	Bolt, Hex Head 3/8-16 x 3-1/4"
21	462323	Pusharm Assembly, LH	65	04001-136	Bolt, Hex Head 3/8-16 x 1-1/2" Grade 8
	462324	Pusharm Assembly, RH	66	481632	Wheel, Anti-Scalp (incl. # 67)
22	04020-16	Nut, 5/8-18 UNF	67	48100-15	Bushing, Bronze
23	48763	Rod End, Male 5/8"	68	04003-26	Bolt, Carriage 3/8-16 x 4"
24	48114-08	Grease Fitting	69	04021-05	Nut, Center Lock 3/8-16
25	452076	Shaft Weldment	70	422478	Bracket, Anti-Scalp Wheel
26	483997	Guide Roller	71	04017-27	Bolt, Hex Head 3/8-16 x 1" Serrated Flange
27	483361	Lever, Deck Level	72	04001-12	Bolt, Hex Head 5/16-18 x 1-3/4"
28	04110-03	U-Nut, 3/8-16	73	04021-10	Nut, 5/16-18 Elastic Stop
29	04003-42	Bolt, Carriage 7/16-14	74	482245	Spring, Discharge Chute
30	04107-04	Bolt, Hex Head 3/8-16 x 2" Special	75	04001-154	Bolt, Hex Head 5/16-18 x 4-3/4"
31	04021-11	Nut, Elastic Stop 7/16-14	76	461846	Discharge Chute Assembly
32	462334	Cutter Deck w/Decals	77	481625-01	Knob w/Stud
33	04021-22	Nut, Elastic Stop 5/16-18	78	425474	Belt Cover, SVR-61V
34	04030-03	Lockwasher, 5/16" Spring			
35	484020	Spring, Cutter Deck			
36	461663	Spindle Assembly			
37	43589	Shaft, Spindle			
38	481024	Seal, Upper			
39	481022	Bearing Assembly			
40	48114-04	Grease Fitting			
41	48677	Valve Grease Relief			
42	43644	Housing, Spindle			
43	43312	Spacer, Outside			
44	43296	Spacer, Inside			

SVR36A, SVR48V & SVR52V CUTTER DECK CONTROLS

Section 8**SVR36A, SVR48V & SVR52V CUTTER DECK CONTROLS**

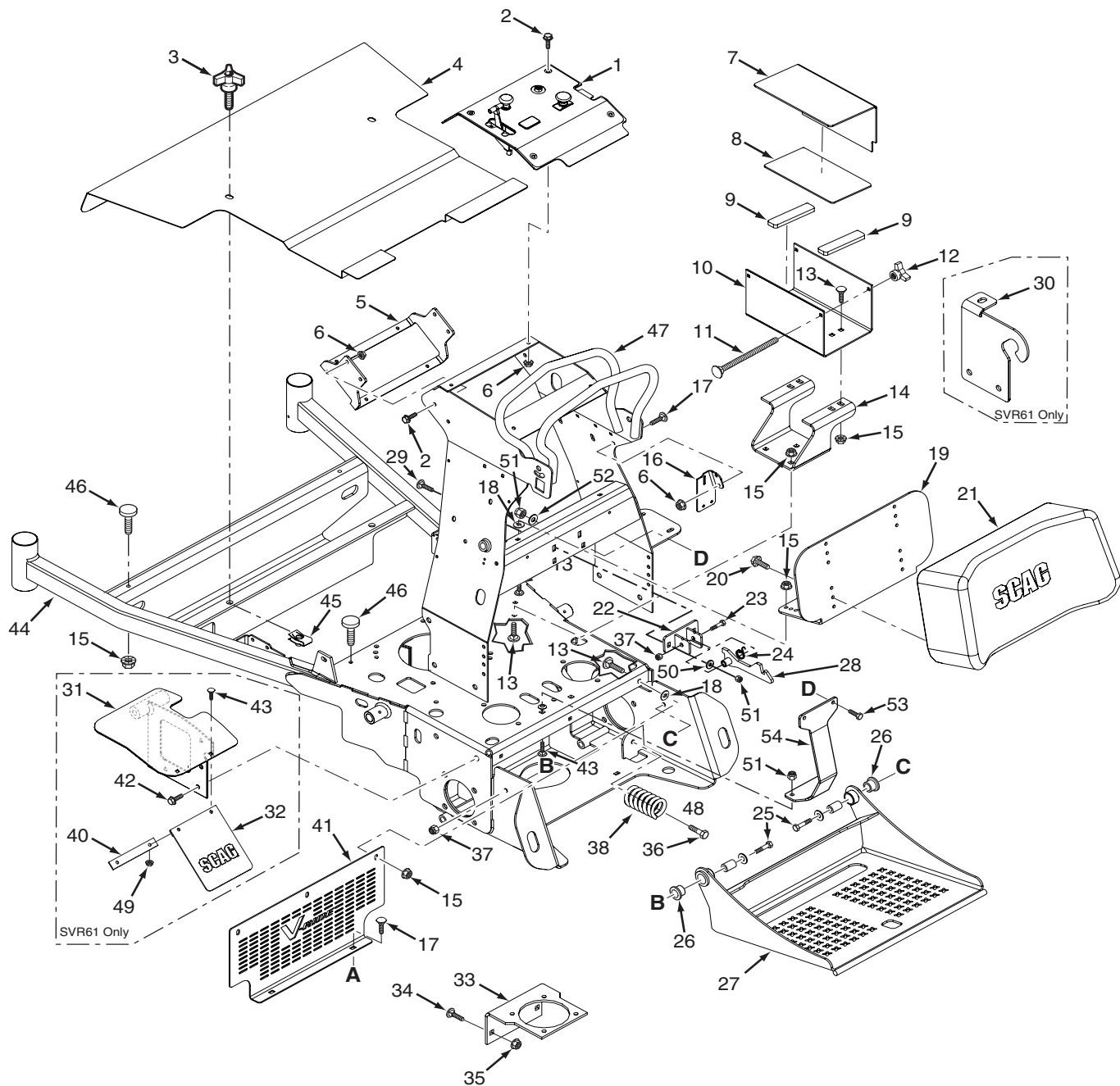
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	481625-01	Knob w/Stud	45	04021-20	Nut, Elastic Stop 1"-14
2	491536	Belt Cover w/Decals (36A)	46	481657	Bearing w/Race
	491537	Belt Cover w/Decals (48V & 52V)	47	481025	Seal, 2" OD x 1.625 ID
3	452063	Arm Weldment, RH	48	452034	Caster Yoke Weldment
4	04021-07	Nut, Elastic Stop 1/2-13	49	04001-80	Bolt, Hex Head 1/2-13 x 6-1/2"
5	43806	Spacer	50	43844	Sleeve, Caster Wheel
6	04001-52	Bolt, Hex Head 1/2-13 x 2-1/2"	51	921D	Caster Wheel Assembly, 11 x 4.0-5
7	04001-74	Bolt, Hex Head 1/2-13 x 3"	52	482622	Seal
8	04019-04	Nut, Serrated Flange 3/8-16	53	482621	Bearing, Tapered Roller
9	04001-20	Bolt, Hex Head 3/8-16 x 1-1/2"	54	48114-03	Grease Fitting, 45 Degree
10	483361	Lever, Deck Level	55	425099	Reinforcement, Bearing - 36A (not shown)
11	483987	Linkage, Deck Lift (36A)		425209	Reinforcement, Bearing - 48V & 52V
	483876	Linkage, Deck Lift (48V & 52V)	56	41020	Weight
12	48540	Chain	57	04001-190	Bolt, Hex Head 1/2-13 x 2-3/4" (48V & 52V - One Weight)
13	452057	Deck Lift Weldment (36A)		04001-82	Bolt, Hex Head 1/2-13 x 4-1/2" (36A - Two Weights)
	452053	Deck Lift Weldment (48V & 52V)		04001-37	Bolt, Hex Head 1/2-13 x 5-1/2" (Three Weights Installed)
14	04019-06	Nut, Serrated Flange 1/2-13	55	43584	Spacer, Caster Wheel
15	04021-10	Nut, Elastic Stop 5/16-18			
16	04001-09	Bolt, Hex Head 5/16-18 x 1"			
17	04110-04	U-Nut, 3/8-16			
18	483628	Bearing, Deck Lift - 36A			
	483334	Bearing, Deck Lift - 48V & 52V			
19	04041-08	Flatwasher, 3/4-.766 x 1.25 x .0598			
20	04050-02	Retaining Ring, .750 "E"			
21	04001-54	Bolt, Hex Head 3/8-16 x 3"			
22	04041-07	Flatwasher, 3/8-.391 x .938 x .105			
23	04021-09	Nut, Elastic Stop 3/8-16			
24	43747	Actuator Rod			
25	483453-14	Bearing			
26	452061	Handle Weldment, Deck Latch			
27	483600	Spring, Deck Latch			
28	43212	Spacer			
29	04001-31	Bolt, Hex Head 3/8-16 x 2-1/2"			
30	04001-183	Bolt, Hex Head 1/2-13 x 1-3/4"			
31	43748	Bushing, Deck Latch			
32	424652	Deck Latch, Outer			
33	04019-06	Nut, Serrated Flange 1/2-13			
34	04021-09	Nut, Elastic Stop 3/8-16			
35	43554	Spacer			
36	43850	Spacer (36)			
	43666	Spacer (48 / 52)			
37	425064	Bracket, Deck Height			
38	04001-82	Bolt, Hex Head 1/2-13 x 4-1/2"			
39	04062-04	Hair Pin Cotter			
40	483345	Pin Assembly w/Lanyard			
41	452062	Arm Weldment, LH			
42	483763	Spring, Deck Lift			
43	43805	Spacer			
44	484195	Cap, Grease			

SVR61V CUTTER DECK CONTROLS

Section 8**SVR61V CUTTER DECK CONTROLS**

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	481625-01	Knob w/Stud	45	04021-20	Nut, Elastic Stop 1"-14
2	491616	Belt Cover w/Decals (61V)	46	481657	Bearing w/Race
3	452063	Arm Weldment, RH	47	481025	Seal, 2" OD x 1.625 ID
4	04021-07	Nut, Elastic Stop 1/2-13	48	451658	Caster Yoke Weldment
5	43806	Spacer	49	04001-167	Bolt, Hex Head 1/2-13 x 9-1/2"
6	04001-52	Bolt, Hex Head 1/2-13 x 2-1/2"	50	43583	Sleeve, Caster Wheel
7	04001-74	Bolt, Hex Head 1/2-13 x 3"	51	9278	Caster Wheel Assembly, 13 x 6.5
8	04019-04	Nut, Serrated Flange 3/8-16	52	43584	Seal
9	04001-20	Bolt, Hex Head 3/8-16 x 1-1/2"	53	482622	Roller Bearing, Short
10	483361	Lever, Deck Level	54	482621	Bearing w/Race
11	484274	Linkage, Deck Lift (61V)	55	48114-10	Grease Fitting
12	48540	Chain	56	41020	Weight
13	452161	Deck Lift Weldment (61V)	57	04001-190	Bolt, Hex Head 1/2-13 x 2-3/4" (One Weight)
14	04019-06	Nut, Serrated Flange 1/2-13	04001-82		Bolt, Hex Head 1/2-13 x 4-1/2" (Two Weights Installed)
15	04021-10	Nut, Elastic Stop 5/16-18	04001-37		Bolt, Hex Head 1/2-13 x 5-1/2" (Three Weights Installed)
16	04001-09	Bolt, Hex Head 5/16-18 x 1"	58	425209	Reinforcement, Bearing
17	04110-04	U-Nut, 3/8-16	59	04019-04	Nut, 3/8-16 Serrated Flange
18	483334	Bearing, Deck Lift - 61V	60	04001-136	Bolt, Hex Head 3/8-16 x 1-1/2" Grade 8
19	04041-08	Flatwasher, 3/4-.766 x 1.25 x .0598	61	452164	Fender Weldment
20	04050-02	Retaining Ring, .750 "E"			
21	04001-54	Bolt, Hex Head 3/8-16 x 3"			
22	04041-07	Flatwasher, 3/8-.391 x .938 x .105			
23	04021-09	Nut, Elastic Stop 3/8-16			
24	43747	Actuator Rod			
25	483453-14	Bearing			
26	452061	Handle Weldment, Deck Latch			
27	483600	Spring, Deck Latch			
28	43212	Spacer			
29	04001-31	Bolt, Hex Head 3/8-16 x 2-1/2"			
30	04001-183	Bolt, Hex Head 1/2-13 x 1-3/4"			
31	43748	Bushing, Deck Latch			
32	424652	Deck Latch, Outer			
33	04019-06	Nut, Serrated Flange 1/2-13			
34	04021-09	Nut, Elastic Stop 3/8-16			
35	43554	Spacer			
36	43666	Spacer			
37	425468	Bracket, Deck Height (61V)			
38	04001-82	Bolt, Hex Head 1/2-13 x 4-1/2"			
39	04062-04	Hair Pin Cotter			
40	483345	Pin Assembly w/Lanyard			
41	452062	Arm Weldment, LH			
42	483763	Spring, Deck Lift			
43	43805	Spacer			
44	484195	Cap, Grease			

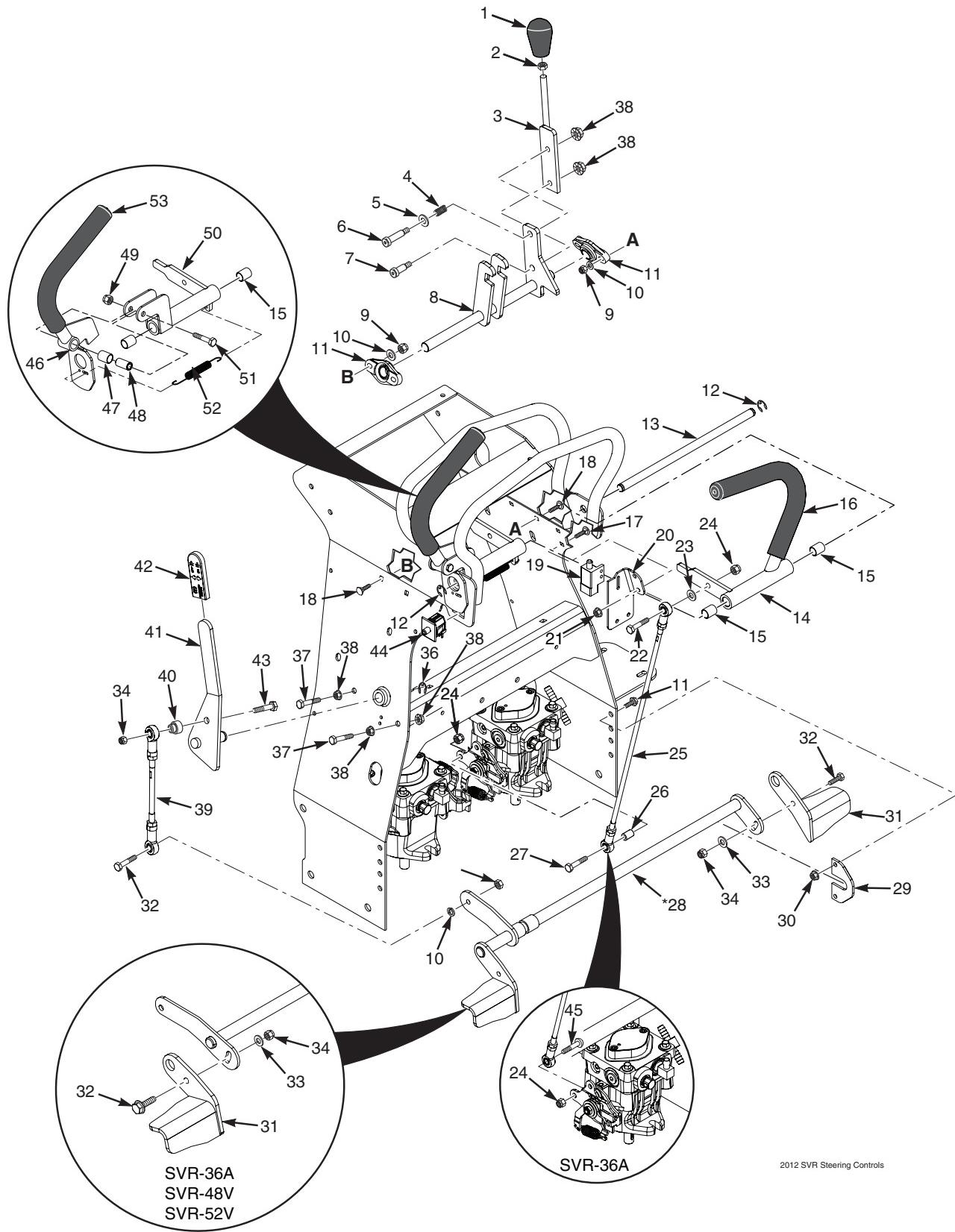
SVR SHEET METAL COMPONENTS



SVR SHEET METAL COMPONENTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	462240	Instrument Panel w/Decal	30	425501	Brake Shaft Support (61 only)
2	04001-06	Bolt, Hex Head 1/4-20 x .63	31	452164	Fender Weldment (61 only)
3	481625-01	Knob w/Stud	32	481714	Mudflap (61 only)
4	491536	Belt Cover w/Decals - 36	33	425084	Bracket, Oil Filter Base
	491537	Belt Cover w/ Decals - 48 / 52	34	04001-19	Bolt, Hex Head 3/8-16 x 1"
	491616	Belt Cover w/Decals - 61	35	04019-04	Nut, Serrated Flange 3/8-16
5	425229	Bracket, Oil Cooler - 48 / 52	36	04001-21	Bolt, Hex Head 3/8-16 x 1-3/4"
	425504	Bracket, Oil Cooler - 61	37	04021-09	Nut, Elastic Stop 3/8-16
6	04019-02	Nut, Serrated Flange 1/4-20	38	484479	Spring, Foot Platform
7	42392	Battery Cover	39	43814	Pin, Spring Mount
8	48099	Insulation, Battery Cover	40	425534	Strap, Mudflap (61 only)
9	48661	Pad, Rubber	41	425806	Guard, Foot - 36
10	423308	Battery Box		425769	Guard, Foot - 48 / 52
11	04003-01	Bolt, Carriage 1/4-20 x 6"		425808	Guard, Foot - 61
12	04029-01	Wing Nut, 1/4-20	42	04001-19	Bolt, Hex Head 3/8-16 x 1"
13	04003-12	Bolt, Carriage 5/16-18 x 3/4"	43	04003-12	Bolt, Carriage 5/16-18 x 3/4"
14	425085	Bracket, Battery Support	44	462539	Mainframe Assembly w/Decals - 36
15	04019-03	Nut, Serrated Flange 5/16-18		462540	Mainframe Assembly w/Decals - 48
16	425307	Bracket, Neutral Switch		462541	Mainframe Assembly w/Decals - 52
17	04003-02	Bolt, Carriage 1/4-20 x 3/4"		462542	Mainframe Assembly w/Decals - 61
18	04024-03	Nut, Push On 5/16"	45	04110-04	U-Nut, 3/8-16
19	425148	Bracket, Knee Pad	46	481284	Bumper, Rubber
20	04017-05	Bolt, Hex Head 1/4-20 x 3/4"	47	452371	Handle Weldment - 36
21	483963	Knee Pad		452372	Handle Weldment - 48
22	491937	Latch Assembly (incl. #22, 23, 24, 28, 37)		452373	Handle Weldment - 52
	452318	Mounting Bracket Weldment, Latch		452374	Handle Weldment - 61
23	04001-46	Bolt, Hex Head 3/8-16 x 2-1/4"	48	04001-168	Bolt, Hex Head 3/8-16 x 1-1/4" Grade 8
24	484492	Spring, Latch	49	04021-04	Nut, Center Lock 5/16-18 (61 only)
25	04001-45	Bolt, Hex Head 3/8-16 x 2"	50	04040-04	Flatwasher, 5/16-.344 x .688 x .065
26	483453-04	Bearing	51	04021-10	Nut, Elastic Stop 5/16-18
27	462428	Footplate Assembly - 36 (Incl. # 26)	52	04040-15	Flatwasher, 5/16-.375 x .875 x .083
	462429	Footplate Assembly - 48 / 52 (Incl. # 26)	53	04001-08	Bolt, Hex Head 5/16-18 x 3/4"
	462430	Footplate Assembly - 61 (Incl. # 26)	54	425945	Brace, Handle
28	452317	Latch Weldment			
29	04003-04	Bolt, Carriage 5/16-18 x 1"			

STEERING CONTROLS

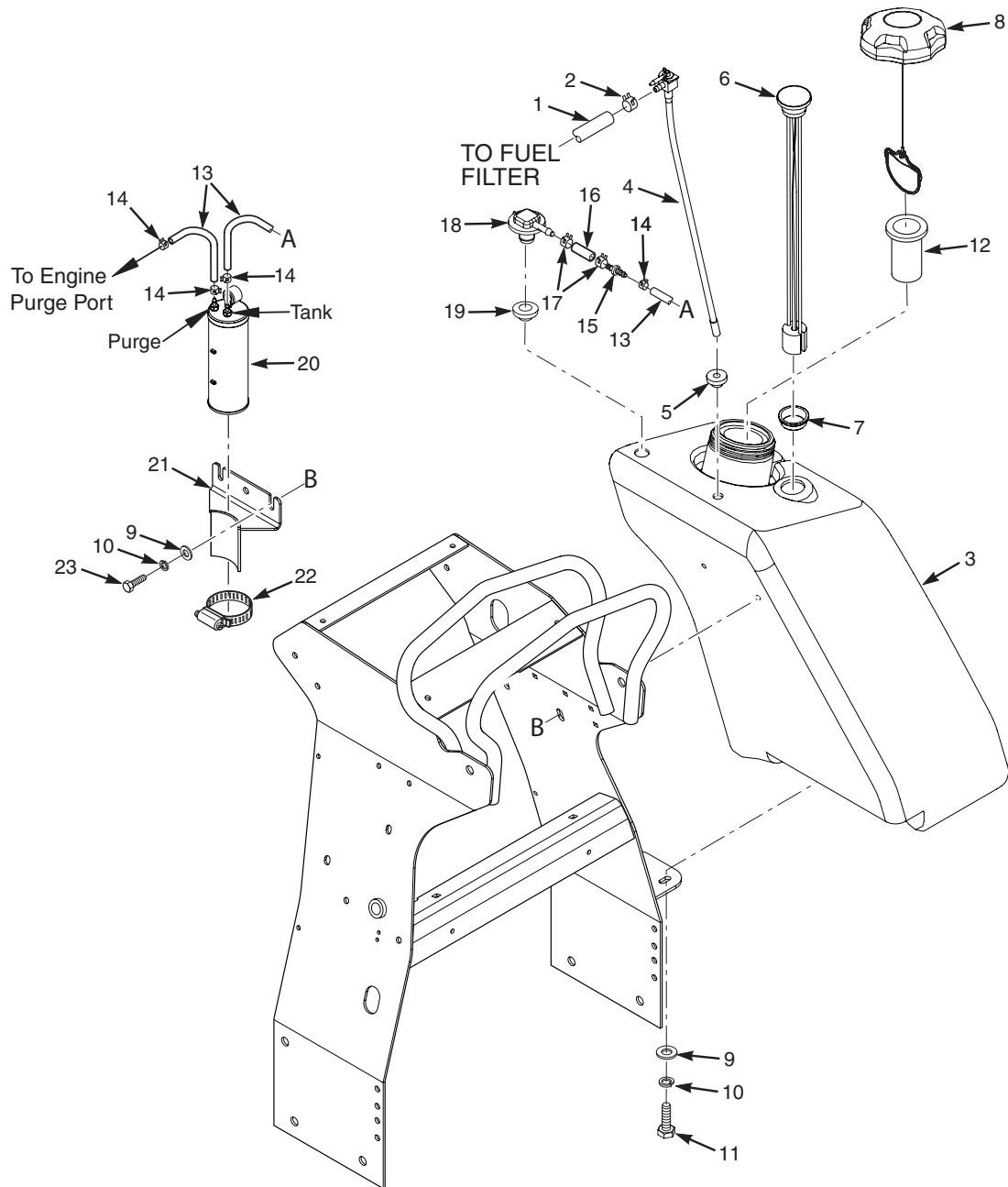


2012 SVR Steering Controls

STEERING CONTROLS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	484093	Knob, Soft Touch	31	452055	Brake Paddle Weldment, LH
2	04020-12	Nut, Jam 3/8-16	452167		Brake Paddle Weldment - SVR-61V
3	452118	Handle Weldment	32	04001-32	Bolt, Hex Head 3/8-16 x 1-1/4"
4	483601	Spring, Neutral Lever	33	04040-12	Flatwasher, 3/8-.438 x 1.0 x .083
5	04050-05	Flatwasher, 3/8-.406 x .812 x .065	34	04021-09	Nut, Elastic Stop 3/8-16
6	04009-11	Bolt, Shoulder 3/8 x 1"	35	04021-05	Nut, Center Lock 3/8-16
7	04009-14	Bolt, Shoulder 3/8 x .375	36	04050-01	Retaining Ring, .625 External "E"
8	452117	Lock Weldment, Neutral	37	04001-11	Bolt, Hex Head 5/16-18 x 1-1/2"
9	04021-08	Nut, Elastic Stop 1/4-20	38	04019-03	Nut, Serrated Flange 5/16-18
10	04030-03	Lockwasher, 5/16" Spring	39	484090	Linkage Assembly, Brake
11	483504	Bearing	40	43750	Spacer
12	04050-10	Retaining Ring, .50 External	41	462241	Brake Lever w/Grip
13	43820	Shaft, Steering Handles	42	491607	Brake Lever w/Grip - SVR-61V
14	462221	Handle Bar Assy., RH (Incl. # 15, 16)	43	481548	Grip, Brake Lever
15	483453-19	Bearing	44	04001-45	Bolt, Hex Head 3/8-16 x 2"
16	484092	Grip, Control Lever RH	45	484497	Switch, Double Pole (N.O. / N.O.)
17	04003-02	Bolt, Carriage 1/4-20 x 3/4"	46	04108-22	Capscrew, Button Head 5/16-18 x 1" (SVR-36A Only)
18	04003-06	Bolt, Carriage 1/4-20 x 1"	47	462422	Steering Handle Assy., LH w/Grip
19	481545	Switch, Interlock	48	483453-22	Bearing
20	425307	Bracket, Neutral Switch	49	43866	Spacer, Handle
21	04019-02	Nut, Serrated Flange 1/4-20	50	04021-10	Nut, Elastic Stop 5/16-18
22	04001-10	Bolt, Hex Head 5/16-18 x 1-1/4"	51	462423	Steering Pivot Assy (incl. #47)
23	04040-04	Flatwasher, 5/16-.344 x .688 x .065	52	04001-12	Bolt, Hex Head 5/16-18 x 1-3/4"
24	04021-10	Nut, Elastic Stop 5/16-18	53	484498	Spring, Handle
25	484072	Linkage Assembly		484494	Grip, Control Lever LH
26	43749	Spacer, Pump			
27	04001-12	Bolt, Hex Head 5/16-18 x 1-3/4"			
*28	452237	Bellcrank, Brake Weldment - SVR-36A			
	452054	Bellcrank, Brake Weldment - SVR-48V/52V			
	452166	Bellcrank, Brake Weldment - SVR-61V			
29	425079	Brake Keeper Plate			
	425467	Brake Keeper Plate - SVR-61V			
30	04019-03	Nut, Serrated Flange 5/16-18			

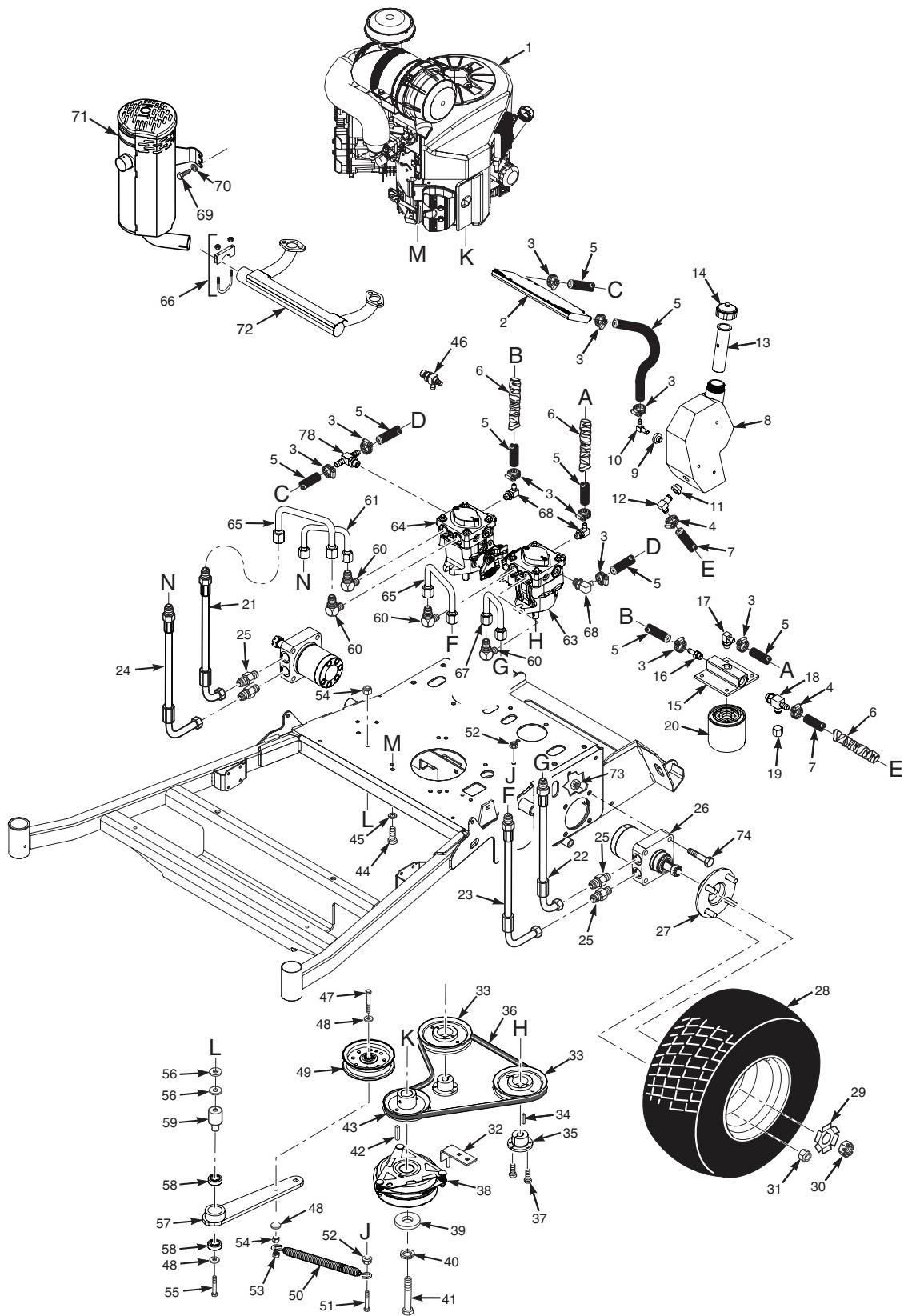
SVR FUEL SYSTEM



Section 8**SVR FUEL SYSTEM**

Ref. No.	Part No.	Description
1	483617	Fuel Hose, 1/4" ID (order by inch)
2	48059-01	Clamp, Fuel Hose
3	462376	Fuel Tank Assembly - SVR-36A / SVR-48V
	462377	Fuel Tank Assembly - SVR-52V / SVR-61V
4	483896	Valve, Fuel Shut Off
5	482571	Bushing, .56 Dia. Viton
6	484246	Fuel Gauge Assembly (incl. #7)
7	484242	Seal, Fuel Gauge
8	484286	Fuel Cap, Tethered (E.P.A.)
9	04040-15	Flatwasher, 5/16-.375 x .875 x .083
10	04030-03	Lockwasher, 5/16" Spring
11	04001-08	Bolt, Hex Head 5/16-18 x 3/4"
12	484279-01	Tube, Fuel Tank Insert - 4"
13	484345	Hose, Vapor Recovery 3/16" (order by inch)
14	48059-05	Clamp, Vapor Recovery Hose
15	484343-01	Mender, 1/4 x 3/16 w/.02 Hole
16	484347	Hose, Vapor Recovery 1/4" (order by inch)
17	48059-02	Clamp, Fuel Hose 7/32" ID
18	484333	Fitting, Remote Vent
19	484285	Grommet, Viton
20	484287	Carbon Canister - SVR-36A / SVR-48V
	484342	Carbon Canister - SVR-52V / SVR-61V
21	452225	Canister Mounting Bracket, SVR
22	48136-17	Clamp
23	04001-09	Bolt, Hex Head 5/16-18 x 1"

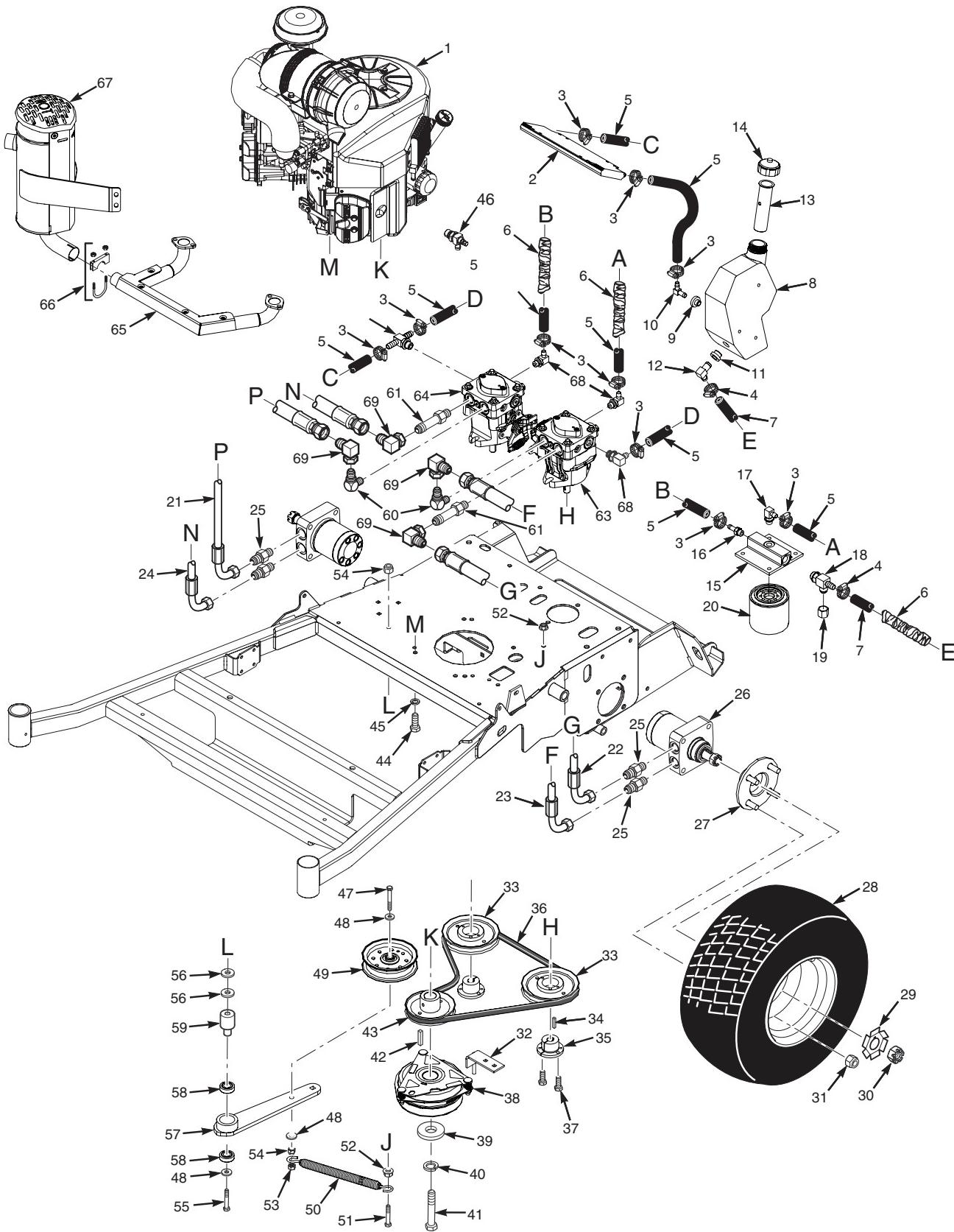
HYDRAULICS AND ENGINE COMPONENTS



HYDRAULICS AND ENGINE COMPONENTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	484101	Engine, Kawasaki FX600V	42	04063-28	Key, 1/4 x 1/4 x 3-1/2"
	484102	Engine, Kawasaki FX691V	43	483802	Pulley, 4.75 OD - 1.125" Bore
	483968	Engine, Kawasaki FX730V	44	04001-32	Bolt, Hex Head 3/8-16 x 1-1/4"
2	482708	Cooler, Transmission (48V / 52V)	45	04030-04	Lockwasher, 3/8" Spring
3	48136-13	Clamp, .69 Max Dia.	46	484089	Oil Drain
4	48136-05	Clamp, .87 Max Dia.	47	04001-161	Bolt, Hex Head 3/8-16 x 2-3/4"
5	48811	Hose, 3/8 Pushlock (order by inch)	48	04043-04	Flatwasher, 3/8-.391 x .938 x .105 HD
6	482839	Heatshield, Flexible	49	483213	Pulley, 4-1/2" Idler
7	48351	Hose, 1/2 Pushlock (order by inch)	50	483526	Spring, Transmission
8	462176	Hydraulic Tank Assy. (incl. # 9 through 13)	51	04001-54	Bolt, Hex Head 3/8-16 x 3"
9	482571	Bushing, .56 Dia, Viton	52	04019-04	Nut, Serrated Flange 3/8-16
10	482572	Fitting, 90 Degree - .38 Hose	53	04021-05	Nut, Center Lock 3/8-16
11	482573	Bushing, .78 Dia. Viton	54	04021-09	Nut, Elastic Stop 3/8-16
12	482574	Fitting, 90 Degree - .50 Hose	55	04001-62	Bolt, Hex Head 3/8-16 x 3-1/4"
13	481507	Insert, Filler Neck	56	04041-12	Flatwasher, 3/8-.375 x 1-1/2 x .059
14	481164	Cap, Hydraulic Tank	57	462229	Idler Arm Assy (incl. # 58)
15	482417	Filter Head	58	48224	Bearing
16	482800-02	Fitting	59	43734	Idler Pivot, Long
17	482266-01	Elbow, 90 Degree	60	48350-05	Elbow, 90 Degree - 1/2 x 1/2
18	482481	Tee Fitting, 3/4 O-Ring	61	484524	1/2" U-Tube Assembly, 4" Wide
19	48571-02	Cap, 3/4" JIC	62	483280	Tubing, Oil Drain (order by inch)
20	48462-01	Oil Filter	63	483863	Pump, LH - 10cc
21	484506	Hose Assembly	64	483862	Pump, RH - 10cc
22	484503	Hose Assembly	65	484525	1/2: U-Tube Assembly, 5" Wide
23	484504	Hose Assembly	66	48633	Clamp, Muffler
24	484505	Hose Assembly	67	484523	1/2" U-Tube Assembly, 3" Wide
25	48572-02	Fitting, Union 1/2 x 5/8	68	482266-01	Elbow, 90 Degree
26	483388	Wheel Motor	69	04119-02	Bolt, Hex Head M8 - 1.25 x 20
27	462275	Wheel Hub	70	04030-03	Lockwasher, 5/16" Spring
28	484361	Wheel Assembly (36)	71	484620	Muffler, Kawasaki (36)
	484056	Wheel Assembly	72	484326	Muffler, Kawasaki (48V / 52V)
	484362	Rim w/Valve Stem (36)	73	04021-19	Exhaust Manifold, Kawasaki (48V / 52V)
	481868	Rim w/Valve Stem	74	04001-52	Nut, Center Lock 1/2-13
	481869	Tire, 18 x 8.5-8 (36)			Bolt, Hex Head 1/2-13 x 2-1/2"
	484057	Tire, 20 x 10.5-8			
29	422214	Lockwasher, Wheel Motor			
30	48679	Hex Castle Nut, 3/4-28			
31	04028-02	Wheel Nut			
32	425213	Anti-Rotation Bracket (36A)			
	425086	Anti-Rotation Bracket (48V, 52V)			
33	482649	Pulley, 5.45 OD - Tapered Bore			
34	04063-14	Key, 5 x 5 x 25mm			
35	482085	Tapered Hub, 15mm Bore			
36	483520	Belt, Pump Drive			
37	04001-172	Bolt, Hex Head 1/4-20 x 1" Gr. 8			
38	462166	Clutch w/Tag (36A, 48V, 52V)			
39	04041-28	Flatwasher, 7/16-.469 x 1.75 x .25			
40	04030-05	Lockwasher, 7/16" Spring			
41	04102-03	Bolt, Hex Head 7/16-20 x 2-1/4" Patch			

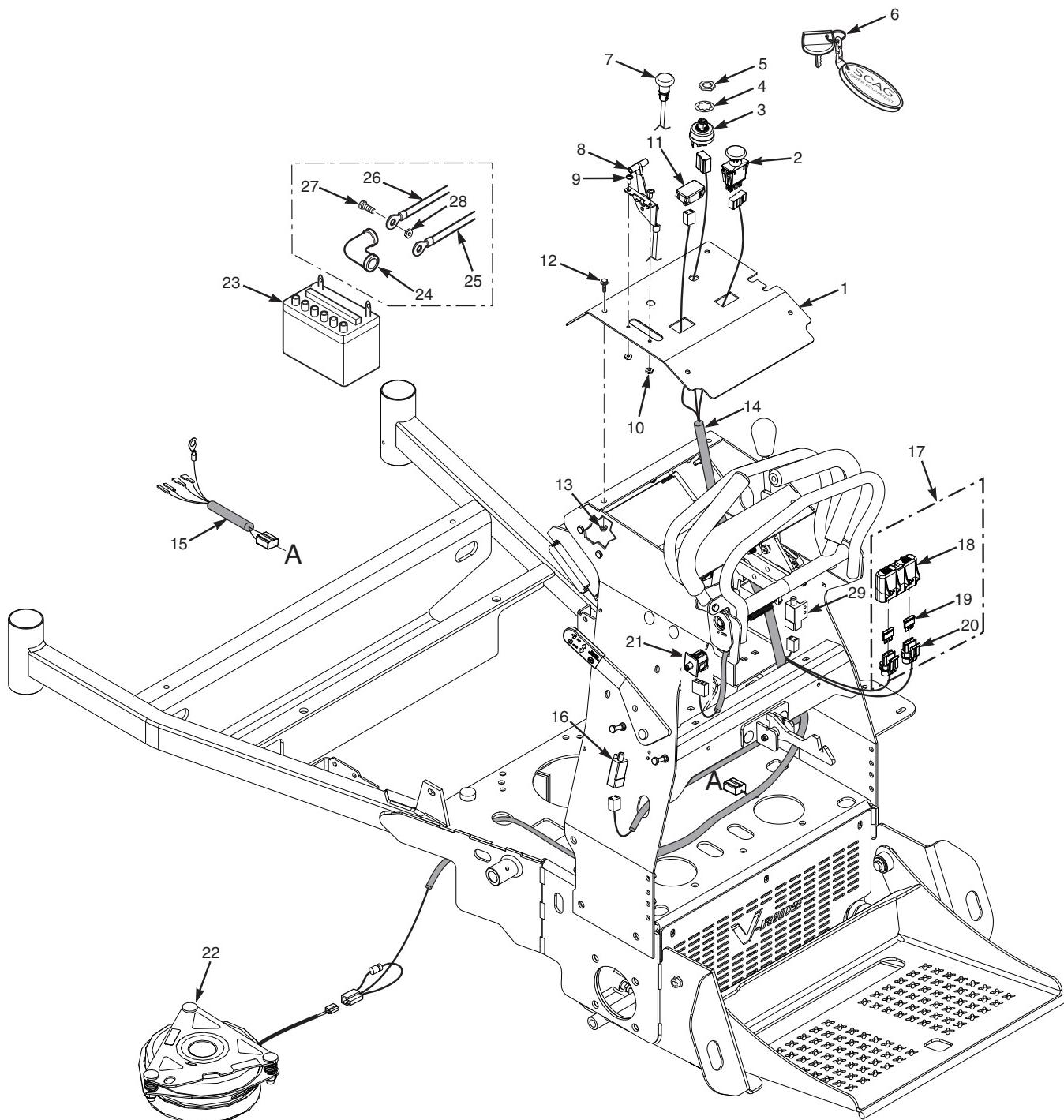
SVR-61V HYDRAULICS AND ENGINE COMPONENTS



Section 8**SVR-61V HYDRAULICS AND ENGINE COMPONENTS**

Ref. No.	Part No.	Description
1	484219	Engine, 29hp Kawasaki FX
2	484317	Cooler, Transmission (61V)
3	48136-13	Clamp, .69 Max Dia.
4	48136-05	Clamp, .87 Max Dia.
5	48811	Hose, 3/8 Pushlock (order by inch)
6	482839	Heatshield, Flexible
7	48351	Hose, 1/2 Pushlock (order by inch)
8	462176	Hydraulic Tank Assy. (incl. # 9 through 13)
9	482571	Bushing, .56 Dia, Viton
10	482572	Fitting, 90 Degree - .38 Hose
11	482573	Bushing, .78 Dia. Viton
12	482574	Fitting, 90 Degree - .50 Hose
13	481507	Insert, Filler Neck
14	481164	Cap, Hydraulic Tank
15	482417	Filter Head
16	482800-02	Fitting
17	482266-01	Elbow, 90 Degree
18	482481	Tee Fitting, 3/4 O-Ring
19	48571-02	Cap, 3/4" JIC
20	48462-01	Oil Filter
21	484510	Hose Assembly
22	484507	Hose Assembly
23	484508	Hose Assembly
24	484509	Hose Assembly
25	48572-02	Fitting, Union 1/2 x 5/8
26	483388	Wheel Motor
27	462275	Wheel Hub
28	484056	Wheel Assembly
	481868	Rim w/Valve Stem
	484057	Tire, 20 x 10.5-8 4-Ply
29	422214	Lockwasher, Wheel Motor
30	48679	Hex Castle Nut, 3/4-28
31	04028-02	Wheel Nut
32	452162	Anti-Rotation Bracket
33	482649	Pulley, 5.45 OD - Tapered Bore
34	04063-14	Key, 5 x 5 x 25mm
35	482085	Tapered Hub, 15mm Bore
36	483520	Belt, Pump Drive
37	04001-172	Bolt, Hex Head 1/4-20 x 1" Gr. 8
38	462339	Clutch w/Tag
39	04041-28	Flatwasher, 7/16-.469 x 1.75 x .25
40	04030-05	Lockwasher, 7/16" Spring
41	04102-03	Bolt, Hex Head 7/16-20 x 2-1/4" Patch

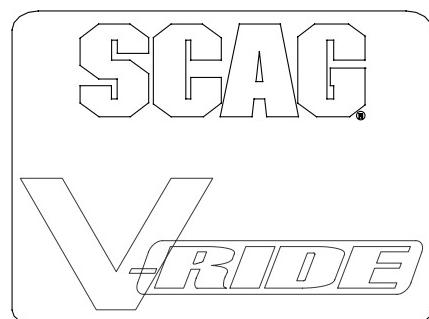
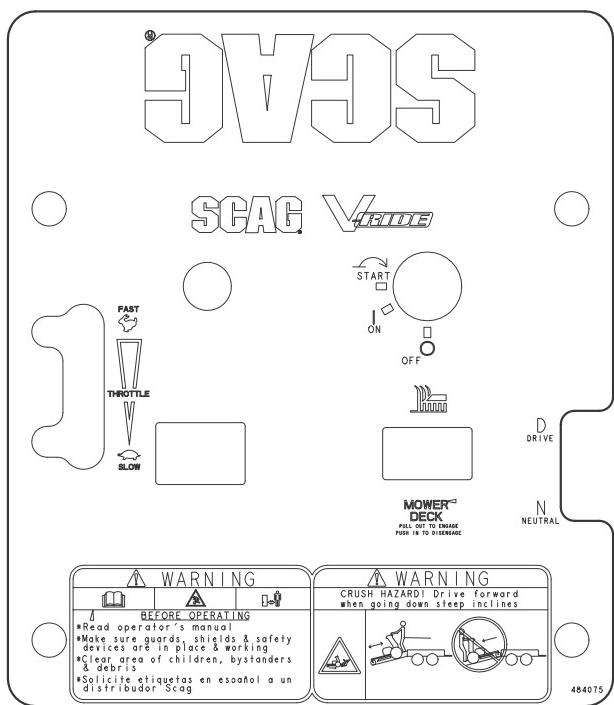
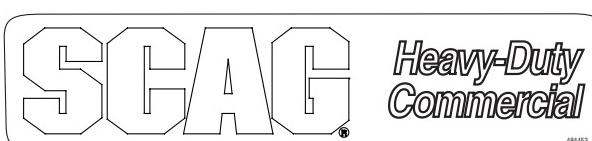
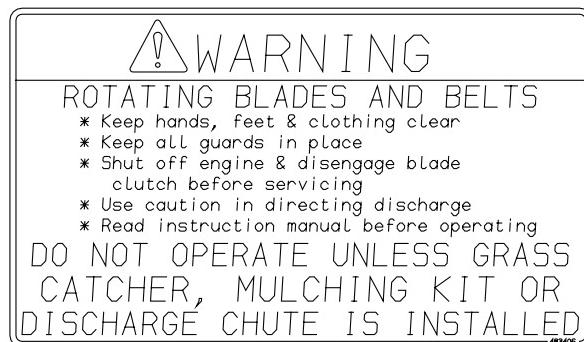
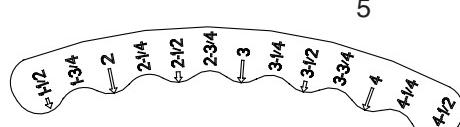
Ref. No.	Part No.	Description
42	04063-28	Key, 1/4 x 1/4 x 3-1/2"
43	483802	Pulley, 4.75 OD - 1.125" Bore
44	04001-32	Bolt, Hex Head 3/8-16 x 1-1/4"
45	04030-04	Lockwasher, 3/8" Spring
46	484089	Oil Drain
47	04001-161	Bolt, Hex Head 3/8-16 x 2-3/4"
48	04043-04	Flatwasher, 3/8-.391 x .938 x .105 HD
49	483213	Pulley, 4-1/2" Idler
50	483526	Spring, Transmission
51	04001-54	Bolt, Hex Head 3/8-16 x 3"
52	04019-04	Nut, Serrated Flange 3/8-16
53	04021-05	Nut, Center Lock 3/8-16
54	04021-09	Nut, Elastic Stop 3/8-16
55	04001-62	Bolt, Hex Head 3/8-16 x 3-1/4"
56	04041-12	Flatwasher, 3/8-.375 x 1-1/2 x .059
57	462229	Idler Arm Assy (incl. # 58)
58	48224	Bearing
59	43734	Idler Pivot, Long
60	48350-05	Elbow, 90 Degree - 1/2 x 1/2
61	484512	Fitting, Union 3/4-16 JIC x O-Ring
62	483280	Tubing, Oil Drain (order by inch)
63	484277	Pump, LH - 12cc
64	484278	Pump, RH - 12cc
65	484198	Exhaust Manifold, 29FX Kawasaki
66	481259	Clamp, Muffler 1.25 Dia.
67	484644	Muffler, 29FX Kawasaki
68	482266-01	Elbow, 90 Degree
69	481203-02	Elbow, 1/2 JIC Female to 1/2 JIC Male

ELECTRICAL SYSTEM

ELECTRICAL SYSTEM

Ref. No.	Part No.	Description
1	462240	Instrument Panel w/Decal
2	483957	Switch, PTO - 10 Amp
3	48798	Key Switch
4	48017-03	Lockwasher, 5/8" Internal Tooth
5	48017-04	Nut, 5/8-32 Special
6	462069	Key Chain w/ Keys
	483609	Key w/Shroud
7	483976	Choke Control, SVR
8	483975	Throttle Control, SVR
9	04003-43	Bolt, Carriage #10-24 x 1/2"
10	04021-26	Locknut, #10-24
11	483537	Hourmeter
12	04001-06	Bolt, Hex Head 1/4-20 x .63
13	04019-02	Nut, Serrated Flange 1/4-20
14	484645	Wire Harness, SVR
15	482543	Wire Harness Adapter, Kawasaki
16	481546	Switch, Interlock
17	483642	Double Fuse Assy. (incl. #18, 19, 20)
18	483571	Cover, Sealed Double
19	48298	Fuse, 20 Amp
20	483629	Fuse Holder
	482588	Clip (not shown)
21	484497	Switch, Double Pole - Plunger
22	462166	Clutch w/Tag (36A, 48V, 52V)
	462339	Clutch w/Tag (61V)
23		Battery (not avail. through Scag)
24	48126	Rubber Boot
25	48029-07	Cable, Battery Black 18"
26	48029-06	Cable, Battery Red 18"
27	04001-01	Bolt, Hex Head 1/4-20 x 3/4"
28	04020-02	Nut, 1/4-20
29	481545	Switch, Interlock

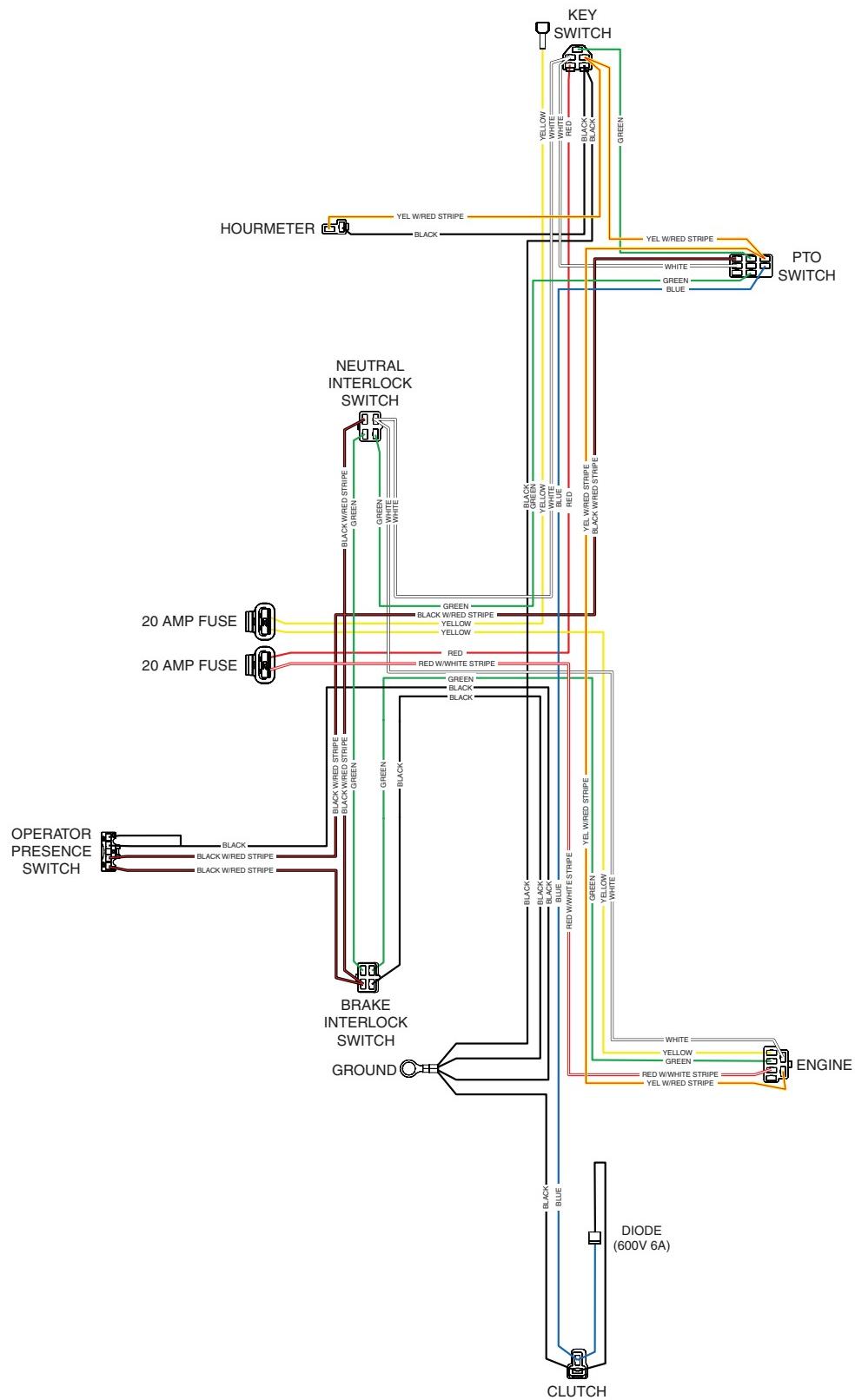
REPLACEMENT DECALS AND INFORMATION PLATES



Section 8**REPLACEMENT DECALS AND INFORMATION PLATES**

Ref. No.	Part No.	Description
1	483402	Decal, Warning - Belt Cover
2	483405	Decal, Warning
3	483961	Decal, Belt Cover
4	483059	Decal, 36A
	483199	Decal, 48V
	483200	Decal, 52V
	483201	Decal, 61V
5	483407	Decal, Spinning Blades
6	48404	Decal, Metalcraft - Made in USA
7	483977	Decal, Height-of-Cut
8	483406	Decal, Warning - Knives
9	484453	Decal, Scag Heavy Duty Commercial
10	484075	Decal, Instrument Panel

SVR ELECTRICAL SCHEMATIC



LIMITED WARRANTY - COMMERCIAL EQUIPMENT

Any part of the Scag commercial mower manufactured by Scag Power Equipment and found, in the reasonable judgment of Scag, to be defective in materials or workmanship, will be repaired or replaced by an Authorized Scag Service Dealer without charge for parts and labor during the periods specified below. This warranty is limited to the original purchaser provided the product was purchased from an Authorized Scag Power Equipment Dealer and is not transferable. Proof of purchase will be required by the dealer to substantiate any warranty claims. All warranty work must be performed by an Authorized Scag Service Dealer.

This warranty is limited to the following specified periods from the date of the original retail purchase for defects in materials or workmanship:

- Wear items including drive belts, blades, hydraulic hoses and tires are warranted for ninety (90) days.
- Batteries are covered for ninety (90) days.
- Frame and structural components including oil reservoir and oil coolers are warranted for two (2) years (parts and labor) for commercial use or three (3) years / 500 hours (whichever comes first) (parts and labor) for non-commercial use.
- Cutter decks are warranted against cracking for a period of three (3) years. (parts and labor 1st and 2nd year; parts only 3rd year.) The repair or replacement of the cutter deck will be at the option of Scag Power Equipment. We reserve the right to request components for evaluation. This warranty does not cover any mower that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual.
- Engines and electric starters are covered by the engine manufacturer's warranty period.
- Major drive system components are warranted for two (2) years (parts and labor) for commercial use or three (3) year / 500 hour (whichever comes first) (parts and labor) for non-commercial use by Scag Power Equipment. (commercial and non-commercial warranty excludes fittings, hoses, drive belts). The repair or replacement of the hydraulic pump or hydraulic motor will be at the option of Scag Power Equipment. This warranty does not cover any mower that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual.
- Electric clutches have a Limited Warranty for two (2) years (parts and labor) for commercial use or three (3) year / 500 hours (whichever comes first) (parts and labor) for non-commercial use.
- Spindle assemblies have a Limited Warranty for three years (parts and labor 1st year and 2nd; parts only 3rd year).
- Any Scag product used for rental purposes is covered by a 90 day warranty.

The Scag mower, including any defective part must be returned to an Authorized Scag Service Dealer within the warranty period. The expense of delivering the mower to the dealer for warranty work and the expense of returning it to the owner after repair will be paid for by the owner. Scag's responsibility is limited to making the required repairs and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Scag mower. "Non-Commercial" use is defined as a single property owner, where the single property is the residence of the owner of the mower. If the mower is cutting more than the owners single property, it is deemed commercial use and the "non-commercial" warranty does not apply. Scag Power Equipment reserves the right to deny and / or void the non-commercial warranty if it believes it to be in commercial use.

This warranty does not cover any mower that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual. The warranty does not apply to any damage to the mower that is the result of improper maintenance, or to any mower or parts that have not been assembled or installed as specified in the Operator's Manual and Assembly Manual. The warranty does not cover any mower that has been altered or modified, changing performance or durability. In addition, the warranty does not extend to repairs made necessary by normal wear, or by the use of parts or accessories which, in the reasonable judgment of Scag, are either incompatible with the Scag mower or adversely affect its operation, performance or durability.

Scag Power Equipment reserves the right to change or improve the design of any mower without assuming any obligation to modify any mower previously manufactured. All other implied warranties are limited in duration to the two (2) year for commercial use, three (3) years / 500 hour for non-commercial use or ninety (90) days for mowers used for rental purpose. Accordingly, any such implied warranties including merchantability, fitness for a particular purpose, or otherwise, are disclaimed in their entirety after the expiration of the appropriate two year or ninety day warranty period. Scag's obligation under this warranty is strictly and exclusively limited to the repair or replacement of defective parts and Scag does not assume or authorize anyone to assume for them any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Scag assumes no responsibility for incidental, consequential or other damages including, but not limited to, expense for gasoline, expense of delivering the mower to an Authorized Scag Service Dealer and expense of returning it to the owner, mechanic's travel time, telephone or telegram charges, rental of a like product during the time warranty repairs are being performed, travel, loss or damage to personal property, loss of revenue, loss of use of the mower, loss of time or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

© 2012
Scag Power Equipment
Division of Metalcraft of Mayville, Inc.